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THE EVOLUTIONARY SPIRIT FOR BETTERMENT IN MEDICAL EDUCATION *

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CHICAGO

The time is opportune to indulge in a few remarks relative to medical education. The evolutionary spirit for betterments pervading the land is significant. The teaching and practice of medicine are being influenced by this same spirit. An opportunity, full of possibilities, now presents itself to this body to manifest this spirit by inaugurating a resistless movement for betterments within our educational ranks. The perturbed condition of medical matters in America and abroad, cries for rectification. Medical education must be standardized, systematized and glorified. Innumerable details must be considered and generalized. The materials are present in abundance, the opportunities are ripe, and everything is in readiness for the master-strokes of our educationalists.

A grave responsibility, in fact, rests on this body. You have before you no easy task, but a mighty labor—a labor in which we proffer you our undivided support and prayers. It is your task to evolve out of chaos a practicable system that will be a credit to yourselves and a lasting monument to the genius and tact of American democracy.

I would specify among the many subjects that would profitably come under your deliberations, three in particular: First, *State Medical Education;* second, *Interstate Medical Relationship;* third, *A National Standard of Medicine.*

I notice by your program that "Standards of Admission to the Medical Schools," "Administration of Entrance Requirements," "The Fifth Year in Medicine," "The Medical Library," "What the Internist Wants the Anatomist and the Physiologist to Teach," and "What the Surgeon Wants the Anatomist and the Physiologist to Teach," etc., are to be presented and discussed by members of this body of specialists in medical education. These presentations and these discussions will be gladly received and thought over, again and again, by the medical profession of this city, state and country.

OVERCROWDING OF THE MEDICAL PROFESSION

One great and lamentable condition stands out very prominently in America, namely, that the medical profession is overcrowded—not by the survival of the fittest, but by the survival of the unfit. This is a serious evil which must be remedied. With a population of about 90,000,000 in the United States, we have at least 140,000 doctors (1 to about 642+) who are legally qualified to practice. In England the proportion of doctors to the population is about 1 to 1,250 and in France 1 to about 2,175. In other nations the proportion is still more favorable to the medical profession. To be concise, we do not need more doctors in America, but we do desire a better brand of doctors. It is my deliberate opinion that this evil, which is due to the large number of irresponsible medical colleges, would be remedied by free medical education.

FREE MEDICAL EDUCATION

The fulfilment in the future of long-cherished ideals in the teaching and practice of medicine is a potent reason for the advocacy of free medical education. Free medical education would ensure a proficient medical profession, which, in turn, would protect the public health and enlighten the masses on medical matters. Thus disease would be forestalled, suffering alleviated and deaths prevented. From a financial standpoint, alone, free medical education would prove a boon to the state, for, since every premature death is a loss to the state of from $1,000 to $2,000 by the lowest computation, every life saved through the agency of the medical profession is a corresponding gain. The number of preventable diseases is many, and the number of deaths due to ignorance is simply appalling.

Free medical education, moreover, would play an important rôle in abolishing certain undesirable private medical schools. The teaching of medicine is too sacred a thing to be trusted at all in the hands of these petty medical colleges. In this connection we would do well to follow the example of Germany, which has demonstrated to the world that it has the best systems of teaching and maintaining scientific medicine.

Allow me to conjure up before you the ideal educational tree as I would fain see it in this state in the near future. Behold, it is a stately tree, with its roots firmly implanted in the common schools, from which it receives its nourishment; its sturdy trunk embodying the high schools, from which it receives its stamina; and its branches outspreading into the various departments of the university, where it attains that maturity which enables it to put forth good fruit in arts, in agriculture, in engineering, in science, in law, and in medicine. Then, with the aid of free medical education, would this stately tree bring forth in medicine the rich and abundant fruits to which our commonwealth is logically entitled.

In our grand educational scheme we must not forget that the life motive of a child naturally begins to germinate at puberty. If all were taught that at this age they should begin to map out their futures and were aided in this by the mature judgment of efficient teach-

* Address of Welcome to the Association of American Medical Colleges, Chicago, Feb. 27, 1911.

ers, according to the symptoms and signs presented by the individual, they would be enabled to decide early on a life career. Especially in medicine is it true that the student should begin on his training early in life.

MEDICAL TRAINING AND TEACHING

The teachers in the college of medicine should be well paid for their services. In this regard all the colleges of a university should be treated alike. The courses should be made largely elective. This elective system would create a spirit of emulation between the professors as well as among the students. The medical student should be given an examination every year, written and oral, and should moreover be scrutinized socially, politically, and religiously.

Didactic teaching and the reading of books is no longer the sole source of knowledge. Memorizing Gray's "Anatomy" and other text-books is unprofitable. I remember when the student who was most lauded at college was he who gave his answers verbatim as he had read the information in a text-book or received it from the lectures of his professor. The introduction of the laboratories into universities and colleges completely changed the method of teaching and learning. The spirit of experimentation is developed by this laboratory method of training, and an impulse for thought and study is inspired. The student of to-day sees for himself, handles for himself and thinks for himself. The young doctor in the hospital investigates what he hears. The laboratory man expresses doubt of what is presented by others and sees for himself.

There is nothing, it seems to me, of much more importance in the successful teaching of medicine than the actual personal contact of professor and student, when the professor may inspire and the pupil be inspired by that subtile quality called personal magnetism. While individual attention by the professor to the student is not always possible, yet much can be accomplished along this line by limiting the size of the class—say to twenty or twenty-five members. This comes back as near as possible to the old doctrine of Locke, Montaigne, Milton, Spenser and others, namely, that the student receives the greatest amount of educational benefit under a tutor.

No matter what method of teaching is employed, however, no student can hope to know it all. Time was not long since when we took an arts course and a medical course at the same time. Professor Eliot, the late president of Harvard University, said: "When I was an undergraduate at Harvard I took almost every course that the college offered. Now I think it would take a bright, active minded student at least one hundred years to go through all the courses the college offers."

THINKERS

"Thinkers rise upon us like new stars, a few in a century." Thinkers are not unlike runners inasmuch as some excel others—those in the lead think farther and faster. Incidentally I might mention here that while some of the medical profession think for themselves according to circumstances, environments and conditions, still many of them, as a result of their bad training, "follow the lead" of some one else. The true philanthropists are thinkers and altruistic specialists. To this class belong Rhodes, Carnegie, Rockefeller and others. What a far reaching influence the philanthropy and thinking of Rhodes will have for all time upon the education of the world. Just think of the furore that has been created by the Carnegie Fund for Medical Education. This donation has stirred us to the utmost and has set us to thinking afresh. Great praise must be given to John D. Rockefeller for all that he has done for general education and research in medical sciences through his unbounded spirit for the welfare of mankind. A new era has been created, a new future is before us, and it is the honorable duty of this distinguished and learned body to aid Carnegie and Rockefeller in their great work.

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A SAFE AND RAPID METHOD FOR THE ADMINISTRATION OF ANTITYPHOID VACCINE

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Since the introduction into the British army of the inoculation of bacterial vaccine as a prophylactic measure against typhoid fever, by Wright and Leishman, medical officers, both at home and abroad, have become thoroughly convinced of the value of the procedure in the military service; so that antityphoid inoculation (or vaccination) can no longer be said to be in the experimental stage. In fact recent orders from the War Department make possible compulsory vaccination of an entire garrison in the presence of an epidemic. So consistently favorable have recent statistics been, that it is safe to say that this method of protection against a dread disease will soon cease to be almost exclusive property of the military organization, but will be accepted and eventually enforced as a safeguard to municipal health.

It is not my purpose to attempt to advance argument in favor of the practice or to explain its rationale or results. A careful perusal of the several recent articles by Major Frederick F. Russell, Medical Corps, U. S. A., would, it is thought, convince the most skeptical of the value of antityphoid vaccination and of its effectiveness. The question which will be considered is, Granted a large number of persons from civil or military life to be vaccinated, how can they best be handled with the least possible loss of time and the greatest safety?

In brief, the method used in our army consists in making three subcutaneous injections, at ten-day intervals, of a killed culture of *B. typhosus*. The vaccine is prepared in the laboratory of the Army Medical School at Washington, D. C., and is sent out in 1 c.c., 5 c.c. and 10 c.c. sealed ampoules, the standard content being 1,000,000,000 dead bacilli per cubic centimeter. The first dose is 0.5 c.c. and the second and third doses 1 c.c. each.

The vaccination of an entire brigade would appear at first sight to be a rather stupendous task, and, as hypodermics are usually given, would indeed be such; but the method about to be described, which is the result of facing just such a proposition, has made possible the administration of over 4,000 doses without a single infected arm, and, with two officers working, at the rate of 5 doses per minute.

The principal factors to be considered, then, since the vaccine is standardized and sterile, are the preparation of the subject's arm (experience having shown that the middle of the posterolateral aspect of the arm offers the most advantageous point), and the manipulation of the syringe and needle. Several syringes were tried with varying results. In general it was clearly demonstrated that any syringe which depended on a rubber or leather washer for a tight connection between needle and barrel

was sure to give trouble and to be short-lived. The best syringe is one with a plain, ground nipple on the barrel, to fit which the bases of the needles are ground. The needles will then stand repeated boiling and still make a tight joint.

It has been suggested that simple plunging of the needle into boiling water or strong solution of phenol or formaldehyd solution is sufficient sterilization; but it is doubtful if the author of such a suggestion would relish being the next man inoculated with that needle after it had been used on a syphilitic. So, in view of the questionable cases bound to appear, each needle was disconnected from the syringe and boiled, a freshly sterilized needle being used on each case.

Records of each case are kept on cards furnished by the Surgeon-General's office, and for this purpose a sergeant is stationed at a desk just within the door by which the men enter the vaccination room. Coat-racks are provided in the hall. The men enter by organizations in as nearly alphabetical order as possible, each with his left arm bare, exposing the lower two thirds of the arm. The necessary data is given to the sergeant as each man enters the "scrub-up" line. Here at the first table the arm is scrubbed with green soap and warm water, rinsed, and the subject passes on to the second table where a second man washes the previously scrubbed area with a 1 to 1,000 solution of mercuric chlorid; he then advances to a third table where the field is rubbed with 95 per cent. alcohol, after which he comes to the officer who is to vaccinate him. This may seem like needless caution, but a glance at the water after a few arms have been washed would prove ample justification for the first step, while the fact that men coming from stables and police work of various kinds, without any preparation whatever, experience no bad results, would indicate its thoroughness.

When the subject reaches the medical officer, the arm is grasped between the thumb and forefinger of the left hand to steady it and pinch the skin taut, while the needle is plunged downward and slightly forward, nearly parallel with the surface of the arm, into the subcutaneous fat. The injection is given with moderate rapidity and the needle quickly withdrawn. The needle puncture is then touched with a glass rod moistened in pure trikresol and the man leaves by another door. The trikresol dries in a few seconds after which the clothing may be replaced.

The use of trikresol in this manner has been very valuable, not only in cauterizing the needle tract, but the slight burn it leaves marks the site of a previous inoculation and prevents the administration of two doses the same day; for in spite of all directions, some men, knowing they must take three doses, will get back in line for another dose. Thus no difficulty is experienced, even with the short-lived memory of colored troopers; for trikresol leaves a white spot for several weeks, and it is impossible to mistake the number of doses received.

The cleaning-up process is conducted in a line and may be as rapid as desirable; the greatest time being consumed in the filling of the syringe and the maintenance of surgical technic regarding the needles. As was stated before, each needle is boiled and for this purpose a small evaporating dish of water containing a little soda bicarbonate is kept boiling over a gasoline torch. An assistant picks up the needles from the table after they are used and drops them in the water to boil, after which they are removed with a sterile eight-inch Kelly clamp and placed point down in the needle-holder. To secure a fresh needle, with the type of syringe described above, it is necessary for the surgeon only to insert the nipple of the syringe into the base of one of the needles in the holder, give it a slight twist and pull it out. It is well, after thus obtaining the needle, to set it firmly on the syringe by grasping the base (which is winged for the purpose) between the fingers and giving an additional twist. In this manner the inside of the base of the needle, its point and shaft and the outside of the nipple of the syringe can in no way become infected. The syringes are of course boiled to start with.

The needle-holder is steam-sterilized in a towel or thoroughly flamed and placed on a sterile towel. Its capacity is such that two surgeons may have sterile needles available at all times and still allow at least one minute for boiling after use. It consists of a sheet of heavily tinned iron so bent that it forms the bottom and sides of a box 10 inches long, 1½ inches wide and 2 inches deep. In the bottom are punched twelve holes about 3/16 inch in diameter, the burr directed inward. It is placed bottom up on the towel and thus furnishes twelve receptacles for needles large enough so that the point may be easily inserted, but too small to pass the base. The burr being directly downward makes the holes sloping enough on the edges so that needles do not catch.

The needle-holder, as before stated, is sterilized and the needles as they are boiled are removed from the water with the boiled clamp and dropped point down in the holes; the bases, projecting above the surface, are readily accessible without the necessity of handling. Sixteen needles will run two surgeons constantly; eight can be in the holder while four are boiling and four waiting to be boiled.

The vaccine ampoules are kept in a 1 to 500 mercuric chlorid solution, removed and dried as needed, and, after shaking, scratched with a file and broken at the neck; the sterile needle is then inserted into the ampoule and the syringe filled. A little practice is necessary to hit the opening in the ampoule every time with a needle, and several needles will be soiled till this practice is acquired; but the use of the vaccine from the original container eliminates one source of infection, while the small opening minimizes dust contamination, which is a factor where so many persons are constantly moving.

By means of the above equipment, two medical officers, assisted by four men, and one non-commissioned officer in charge of records, have been able to maintain an average of between four and five doses to the minute for an hour or more, and while it may seem elaborate and require considerable help, it is in reality a time-saver for both the subjects and the medical staff. At all events it has made the vaccination of from 150 to 300 men (a not unusual daily occurrence) a mere incident instead of a rather formidable task.

In view of the marked interest taken in antityphoid vaccination by civilians in the neighborhood of Fort D. A. Russell, it is safe to prophesy that the time is not far off when civil practitioners will be confronted with the problem of wholesale vaccination against typhoid in schools, etc.

It is hoped that the procedure may not fall into disrepute on account of infections due to the sacrifice of good technic for speed, and that the preceding paragraphs, in which the methods described apparently combines both technic and speed, may contain some useful suggestions.

I wish to acknowledge my indebtedness to Major George A. Skinner, Medical Corps, U. S. A., and to Captain Percy L. Jones, Medical Corps, U. S. A., for invaluable assistance in the working out of this system and the preparation of this article.

THE PREVENTION OF INDUSTRIAL PHOSPHORUS POISONING *

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This paper is based on supervision, extending over two and a half years, of the hygiene of employees in a large match factory, and observation before and during that time of several cases of necrosis of the jaws from various sources.

The subject may at first sight appear to be of interest only to manufacturers and those interested in labor conditions, but it has been recently so much before the general public in newspapers and magazines, and concerns an article of such universal use, that it is deserving of some attention by medical men.

The pathology of phosphorus necrosis of the jaws is not fully understood, but that this is a very common effect of chronic phosphorus poisoning is well known. Whether the result is an expression of the general toxemia sometimes present in these cases, the poison being derived from the blood after absorption into the system, or whether it gains direct entrance through local lesions in the mouth, is still unsettled. The evidence tends to show that both factors may be present in a few cases, though my observation is that the disease (necrosis) as a general rule may be purely local in origin, and that the poison gains entrance through local points of lowered resistance in the mouth, such as decay of the teeth involving the root canals, pyorrhea alveolaris, etc.

It is well established that the white or yellow phosphorus alone is poisonous, and for that reason legislation has been passed in many European countries, including Great Britain, forbidding its use in the manufacture of matches. In these countries the non-poisonous, red, amorphous phosphorus, and the sesquisulphid of phosphorus are used. The red phosphorus is employed in the manufacture of safety matches, which will strike practically only on the box, while matches made from the sesquisulphid strike anywhere. Neither of these forms of match is as satisfactory to the general American public as the common yellow phosphorus parlor match at present on the market.

Federal and state legislation is now being proposed against the manufacture of yellow phosphorus matches in this country, much stress being laid on the danger to employees in factories making them; and it is undoubtedly true that conditions in some factories justify these measures. Mr. John B. Andrews, Secretary of the American Association for Labor Legislation, recently conducted an investigation of match factories in the United States, and reported his results to the Department of Commerce and Labor. The conclusions he reached were on the whole unfavorable to the continuance of the use of white or yellow phosphorus in the manufacture of matches. Newspapers and medical journals in editorials have taken up the cry and unanimously condemn the yellow phosphorus match, without knowing all the facts, and without fully realizing the economic and other conditions involved. Safety and sesquisulphid matches, under the present tariff and labor conditions, cannot be produced in this country in competition with foreign manufacturers, and if this legislation is passed without modification, the match companies of the United States, representing a capitalization of $20,000,000, employing about 5,000 persons, and putting forth an annual product amounting to about $15,000,000, will be driven out of business. The match manufacturers also point out that other trades, such as those involving the use of lead, are more dangerous to employees than the manufacture of matches. These arguments, however, do not justify the use of poisonous phosphorus when there is a non-poisonous substitute, unless the risk to workers can be eliminated. Can this be done? I believe that, barring absolute carelessness on the part of employees, comparable to playing with dynamite on the part of a miner, yellow phosphorus can be used in the manufacture of matches practically without danger.

SAFETY MEASURES

The following is a brief account of the precautions that have been taken during the past two and a half years by one company. Afterward we shall see the results attained.

The company has on its pay-roll about 120 persons—men, women, boys and girls. There are at the present time forty-four women and girls, the rest being men and boys. There are three main departments: (1) the machine room, where the match sticks are cut and dipped by machinery, employing thirty-five men and boys; (2) the filling room, where the matches are packed into the boxes, chiefly by hand, employing forty-forty women and girls, and twenty-two boys; (3) the general department, which includes the chemical room, the saw and planing mill, the printing and box-making rooms, and the lumber-yard.

General Precautions.—The factory is roomy, and is provided with thorough ventilation, whereby there is a complete change of air every four minutes, and the phosphorus fumes are drawn out by air pumps placed directly over the working places. Lunch rooms, apart from the working rooms, are provided, and employees are obliged to wash their hands before eating. They are instructed about care and cleanliness of the mouth and teeth, and warned against eating or chewing tobacco while at work. An antiseptic mouth-wash is supplied free to all employees. Recently a new match has been introduced, which requires only about one-fifth the amount of phosphorus used in the ordinary match, and machinery will be installed shortly that will greatly reduce the personal handling of the matches.

Special Regulations.—No person is permitted to start work in the factory without a certificate from a local dentist, or until he has been passed on by the special examiner at his monthly visit. A visit is made to the factory by this examiner once a month, at which time the mouths and teeth of all workers are carefully examined, and in addition a survey is made of their general condition as to anemia, hypertrophied tonsils, throat and lung trouble, etc. The results of the examinations are carefully noted on cards. Employees with diseased teeth are required at once to visit a dentist, enforced absence from the factory until the work is completed being left to the judgment of the examiner according to the severity of the lesions found, ranging from simple dental caries to alveolar abscess. It is a general rule not to permit those under treatment for any lesion more serious than simple caries to remain at work. At the next visit the treatment that has been carried out is carefully recorded on the cards. All candidates for employment are obliged to have their mouths and teeth put in order before they are accepted. The aim is to select robust individuals as workers, with sound teeth if possible, and to avoid those with devitalized

*Read in the Philadelphia County Medical Society, Feb. 22, 1911.

teeth and those wearing fixed artificial appliances such as crowns and bridges. It is not practicable to make this an absolute rule, and if the individual wearing crowns or bridges be otherwise healthy he is admitted, provided his mouth is kept in good condition. All applicants with diseased tooth-roots beyond repair, are sent to have these extracted, and the wounds caused in their removal must have completely healed before permission is given to work. Persons suffering from simple dental caries are permitted to work during the time they are under the care of the dentist, but those who have devitalized teeth or cavities involving the pulp-chamber must wait until the dental work is completed.

Monthly inspection, with special attention to the teeth and jaws, keeps the health of the employees right up to the mark, and any development of disease is checked in time. From observation of patients who had worked in the factory for years before the regular examinations were introduced, it is found that the disease may lie dormant for months without any external evidence of its existence, and many of the cases of necrosis arise without pain. The slightest sign of development of an alveolar abscess is sufficient reason for prohibiting the employee from further work until the trouble has subsided. Cases of necrosis due to causes other than phosphorus may of course arise in match workers, and the trouble be attributed to phosphorus. In one case the Wassermann reaction testified to the syphilitic origin of the disease.

RESULTS AND STATISTICS

During the past two and a half years (July, 1908, to December, 1910), 177 persons have been observed for over six months each, divided into departments as follows:

Filling room	97
Machine room	52
General	28
Total	177

Eighty-one of these have worked in the factory for more than two and a half years, that is, before the routine inspections were instituted, as follows:

Filling room	39
Machine room	26
General	16
Total	81

Since the regular monthly examinations have been in force, eight cases of necrosis of the jaws have been found. In one of these the diagnosis of syphilis was confirmed by the Wassermann reaction. Of the other seven, two of the cases began as alveolar abscesses from roots of teeth bearing artificial crowns. Two began from devitalized teeth which had been undergoing treatment for a long period. In another case the man was employed in mixing the chemicals, undoubtedly the most hazardous work in the factory, because it necessitated handling the phosphorus in a concentrated form. Practically every tooth in his mouth had at some time required treatment. The disease rapidly extended and involved the entire lower jaw-bone, resulting finally in the death of the patient. The fatal outcome of this case is to be attributed chiefly to neglect on the part of the patient himself, and his refusal to remain under proper care and to comply with treatment. The man now working in this part of the factory is obliged to have his mouth examined weekly. Two other cases in men employed for nine years occurred after extraction of several badly decayed roots, which they had persistently neglected to have removed. Four of the cases occurred in women working in the filling room, where the matches are packed into boxes by hand. None of these cases can be quoted as an argument against the efficiency of the measures at present in force.

SUMMARY OF CASES

1. Chemical room, male..... ..Lower jaw, fatal
2. Filling room, female.....Upper jaw, slight
3. Filling room, female.....Upper jaw, moderate
4. Filling room, female.....Upper jaw, moderate
5. Filling room, female.. .....Lower jaw, severe
6. Machine room, male..... .....Upper jaw, slight
7. Superintendent, male..... .....Lower jaw, severe

Thus there have been seven cases of true phosphorus necrosis manifesting themselves since the routine examinations were begun, all occurring in persons who had worked at the trade several years before that time. Previously the company had been continually troubled with cases of the disease. (It is interesting to note that in these seven cases, the upper jaw was affected more frequently than the lower, which is contrary to the general teaching.) In Cases 6 and 7 the employees had been with the company nine years, and had worked at the trade longer still without any hygienic regulations. In all of the cases reported the individuals had bad teeth; that is, teeth through which the infection could directly reach the jaw-bone. The disease has developed in no one who has since admission to the factory been subjected to a monthly examination of the mouth and teeth. In no case has the disease developed without a previous dental lesion. At the present time the factory is absolutely free from the disease.

CONCLUSION

The foregoing facts all point to a local infection of the jaw-bone by the phosphorus through diseased teeth as the essential factor in necrosis. In view of these results of observations on 177 persons for periods ranging from six months to two and a half years, it is justifiable to conclude that the measures in operation at the present time are effectual in the prevention of necrosis in persons employed in the manufacture of matches from white phosphorus, and that the substitution of other less satisfactory materials is unnecessary.

1623 Walnut Street.

Conditions Favorable for Cesarean Section.—The mother must be healthy and the child living and at full term. The mother should be under observation for a time beforehand in hospital or nursing home. It must be ascertained by careful examination that Cesarean section is the best available mode of delivery. Any previous handling or examination must be conducted under the strictest antiseptic precautions. The patient must be prepared as is usual for an abdominal section. The usual routine is disinfection of the external genitals and vagina, sterilization of the skin with iodin solution; rubber gloves for the surgeon and all assistants; high median abdominal incision; long swabs packed round the uterus; median incision of the uterus and delivery of the child before bringing the uterus out of the abdomen; thorough cleansing of uterine cavity and making sure of patency of cervix for subsequent drainage; interrupted catgut sutures through the uterine wall, covered in with continuous catgut suture of the peritoneal edges of uterine wound; stitching of the abdominal wound as far as possible in the usual layers, with supporting through and through silkworm-gut sutures.—A. W. Russell, in the *Practitioner*.

AN EFFICIENT AND TIME-SAVING METHOD OF TYING THE SQUARE KNOT

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The time consumed in tying sutures and ligatures during many surgical operations is too great in proportion to the time taken to do the rest of the work. The circumstances under which ligatures must be tied often render the work most difficult and unsafe when done in many of the ordinary ways. The very fine ligature material often used, gloved fingers covered with blood and other fluids, deep and small cavities, the short time one has at command, and the great importance of the security of the knot change a very simple task into one of great moment.

A knot to be of the greatest value must be one which will not slip or cut the ligature while being tied; it must be simple, requiring few and uncomplicated movements to produce it. It must be made in such a manner that both ends of the ligature are held in the grasp of the fingers while the knot is being tied. It should be tied with one hand. With these important facts in mind we devised the method here described for tying that best of knots, the square or reef knot.

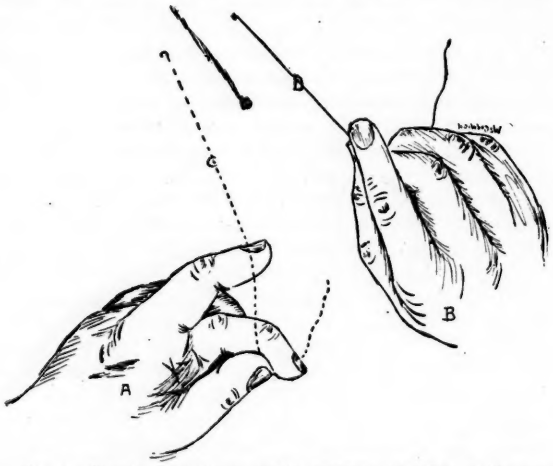

Fig. 1.—Hands (A, left; B, right) grasping the ends of the ligature, ready to make the knot.

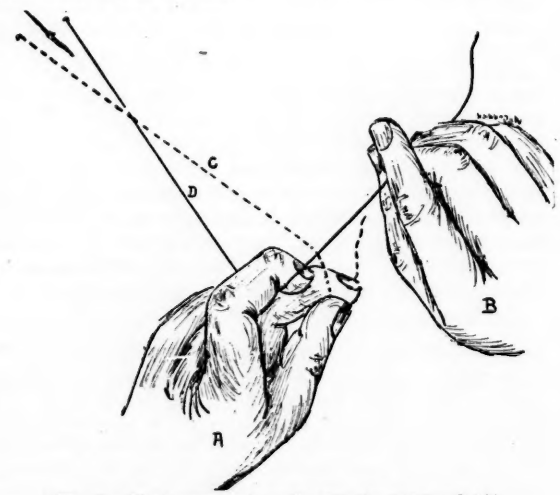

Fig. 2.—First movement, made with the left hand (A).

The accompanying drawings were made while the author posed to show each step. To enable the reader to follow each detail, the hands are represented as his own hands, and not as those of some one else whom he is watching.

The left hand (Fig. 1 A) grasps the left end (C) of the ligature between the thumb and the middle finger. The ligature (C) passes over the index finger. The right hand (B) grasps the right end (D) of the ligature. This grip is constant throughout the process of tying the knot. In rapid work the right hand is moved slightly from right to left. The index finger of the left hand is then hooked (Fig. 2) over the end of the ligature (D). The left end of the ligature (C) rolls off of the left index finger. This finger is now further flexed, causing the left end of the ligature (C) to rest on the nail of the same finger. The left index finger is then extended (Fig. 3) and ready to pull C through the loop in D (Fig. 4). The first half of the knot is then tightened (Fig. 5). The middle finger of the left hand will be on the left side of C when the hands are lifted into position over the incision (E).

In the second step the thumb and index finger of the left hand hold the left end of the ligature (C), and the left middle finger is hooked under D. By first flexing

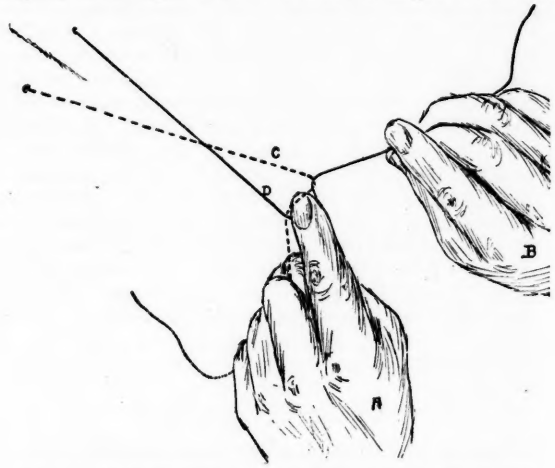

Fig. 3.—The index finger of the left hand (A) making the loop.

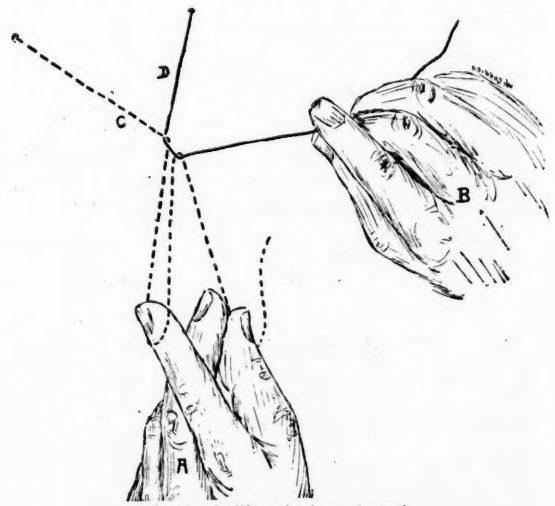

Fig. 4.—Pulling the loop through.

and then extending this finger C is again hooked through D, and the knot is finished (Figs. 6 and 7).

There is thus produced a square knot which has one turn in either half. This is the best knot for tying ordinary vessels as two turns in one half prevents the ligature from being drawn down to the vessel. The larger the ligature used, and the smaller the vessel to be tied, the greater will be the error by making two turns in the

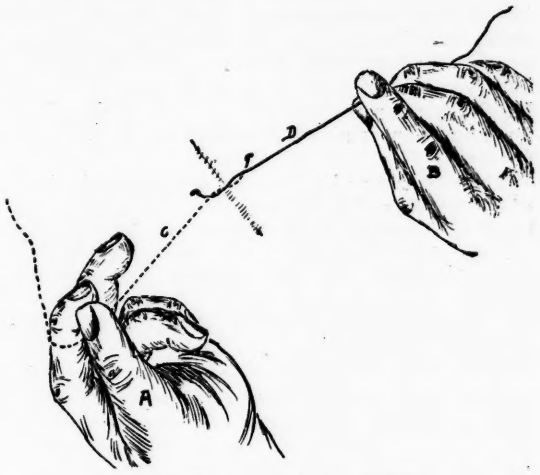

Fig. 5.—First half of knot completed.

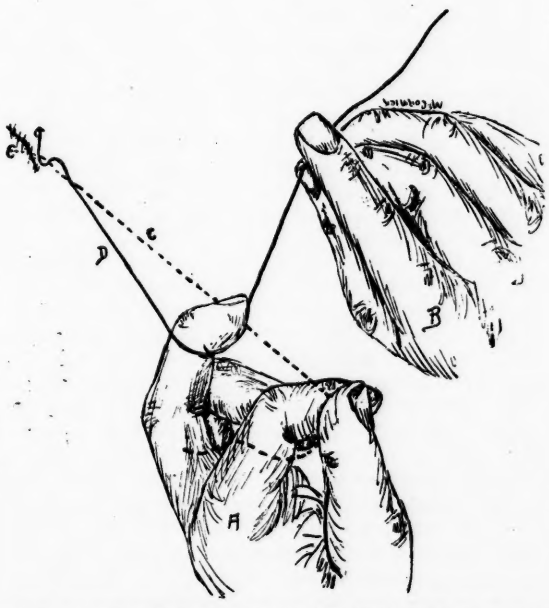

Fig. 6.—The middle finger of the left hand ready to make the loop for the second knot.

first half of the knot. This knot can be produced equally as well by either hand. If it is desired to have two turns of the ligature in either half of the knot, the same principles can be utilized. All that is necessary is to employ both the left and the right hands simultaneously. The left hand makes the first part of the knot using the index finger while the right hand makes the second part using the middle finger. This will produce the first half of a knot with two turns in it. Now, if the same steps are taken, only in this instance the index finger of the right hand and the middle finger of the left hand are used, the second half of the knot will be made. Each end of the ligature remains in the hand in which it was held in the beginning of the process. It can be produced almost as quickly as the one which has only the single turn in either half.

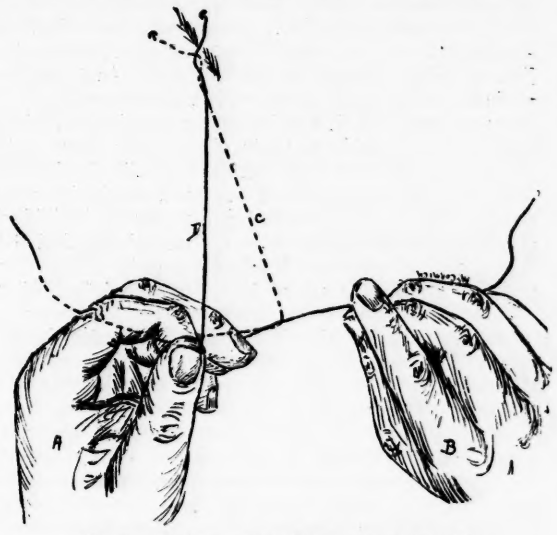

Fig. 7.—The loop made and the knot all but tied.

It should be borne in mind that where there are two turns in the first half of a knot there should also be two in the second, for if there be two in the first part and only one in the second there will be loosening of the first part when the second part is drawn tightly. This is especially true when tying stiff chromic or heavy plain catgut.

1820 Sutter Street.

"INNOCENT" GALL-STONES A MYTH

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Ten years ago we heard a great deal about "innocent gall-stones," which meant that gall-stones existed without symptoms and that their presence was not suspected until post-mortem examination brought them to light. We cannot now escape the conviction that the gall-stones did cause symptoms and that we as diagnosticians, and not the gall-stones, were "innocent."

In the early history of our knowledge concerning gall-stone disease, the diagnosis was not often made until secondary complications and infections had brought about marked local signs and symptoms, or until Nature hung out the yellow flag of jaundice. The mysteries of the disease have, however, been gradually dispelled by operative interference, which has given us pathologic information of the early stages.

It has been stated by good authorities, Naunyn,[1] and others, that gall-stones are present in 10 per cent. of the human race, and this conclusion has apparently been substantiated by the post-mortem material obtained from large hospitals, old ladies' homes, almshouses, etc., but it is quite certain that the illness or disability which placed these people in the hospitals, or disabled them to

1. Naunyn: Keen's Surgery, 1910, p. 1006.

the extent of becoming a charge on the community, were in themselves of a nature to bring about gall-stones or to be caused by such disease. It would be idle to estimate, as has been done, that there are sixty million Germans and that six million, or 10 per cent. of them, have gall-stone disease. Obviously the premises on which any such computation is based are incorrect.

Hale White[2] found that, in twenty-five years in Guy's Hospital, there had been 11,333 post-mortem examinations of adult subjects, and that just 333, or 3 per cent. of them had had gall-stones. That this percentage is in excess of the truth if applied to the population at large seems fairly probable, as again, these adults were not the average "well," but the average "sick." It is more probable that one-half of 1 per cent. would be a fair estimate of the frequency of gall-stones in individuals of all ages, although evidence at hand shows that 5 to 8 per cent. of women and 2 to 4 per cent. of men have gall-stones after the age of 50. From Jan. 1, 1901, to Dec. 31, 1910, a period of ten years, 1,244 women were operated on in St. Mary's Hospital, Rochester, Minnesota (C. H. and W. J. Mayo), for uterine myomata. Of these, ninety-two or 7.1 per cent. had gall-stones.

As regards the presence of gall-stones without symptoms: The symptoms may not be recognized as coming from gall-stones, but if gall-stones are accidentally found during the course of operation for other causes, and the history is retaken in the light of these findings, it will usually be found that symptoms were present but were not differentiated from the symptoms of the disease for which the original operation was undertaken. I have been impressed with this fact on finding undiagnosed gall-stones in operating on women for pelvic trouble. After the recovery of the patient I have nearly always been able to elicit a satisfactory history.

The hypothesis of Lartigau[3] as to the bacterial causation of gall-stones is probably correct, namely, that the attenuated infection which seems to be necessary to their formation comes from infected bile, due to bacteria which have been carried to the liver through the portal circulation, which were not completely destroyed. That this passage of bacteria through the liver occurs just as certain bacteria pass through the kidney, has been demonstrated. The necessary degree of attenuation of the bacteria has been difficult to reproduce experimentally, and experimental gall-stones therefore have been but rarely produced.

The more common bacterial agents are derived from the colon and allied groups, especially the bacillus of typhoid. Admitting that, in healthy persons, the bile is sterile, in the various intestinal diseases such as typhoid, ileocolitis, etc., an excessive number of colon and similar bacteria are carried to the liver through the portal circulation, and experimental work shows that, under such circumstances, these bacteria may be isolated from the bile.

Adami[4] has pointed out that the pigmented areas in the liver are derived from the pigments of destroyed bacteria, and in his contribution to the physiology and pathology of the liver, gives many interesting facts in this connection.

It is possible that in some instances an ascending infection through the common duct from the duodenum to the gall-bladder may cause gall-stones, but we should remember that there is a constant stream of bile and pancreatic juice toward the duodenum which interferes mechanically with bacterial invasion, and again, as Adami and Cushing[5] point out, the content of the duodenum is relatively free from bacteria. One must also admit the possibility of bacterial invasion of the gall-bladder by way of the hepatic artery or through the lymphatics; but this is equally difficult to prove or disprove.

Gall-stones are originally formed in the gall-bladder, although later in the disease, because of obstruction and infection in the common and hepatic ducts, secondary stones may form in the liver ducts; but I have never seen hepatic duct stones without evidence that the original disease had its source in an infection of the gall-bladder or common duct, and the common duct involvement was almost always secondary to the gall-bladder disease.

The symptoms of gall-stones depend on the location of the stones, and here the anatomy of the gall-bladder plays an important part. The cystic duct is not continuous with the neck of the gall-bladder, but is elevated on its inner side; the neck forms a little pouch which overlaps the duct on its outer surface. It is in this situation, the so-called "pelvis" of the gall-bladder, that stones are so often impacted.

It has been a matter of speculation why the gall-bladder, when filled with pus and acutely infective material, should not produce more serious constitutional disturbances. The explanation lies in the fact that the gall-bladder has no lymphatic glands and very few lymphatic channels; therefore it has not the possibility of ready absorption, and its elastic tissue permits such speedy distention that the septic material is not under sufficient tension to force the infection into the circulation. By the time the tension has become great the lymphatic channels are blocked with inflammatory products and a thick leukocyte sheet protects the gall-bladder, as is shown by the great thickening of its walls. When stones in the common duct cause cholangeitis, we promptly get extreme symptoms, often aguish in character, due to the relative abundance of lymphatics along the cystic and common ducts and in the fissure of the liver; the temperature often running up to 103 and 105 F. for short periods of time. This sudden elevation of temperature is usually accompanied by colic and more or less jaundice, although in the quiescent period about 30 per cent. of cases of stone in the common duct will have little or no jaundice. Movable stones in the cystic duct, with a contracted gall-bladder, will cause intermittent symptoms of the same type as those accompanying common duct stones, but without the jaundice.

Older observers developed the natural history of gall-stone disease from the post-mortem pathology, which was obtained after the ravages of terminal infections and secondary complications had grossly changed the conditions which existed during life. The newer or physiologic method of study is based on an investigation of the early departure from health, and brings up the question, What is the purpose of the gall-bladder? In times past we have been ready to assert that it was a storehouse for bile, but there is as much bile secreted in twenty-four hours as there is urine; and of what avail would be a storage capacity of one ounce, which is the capacity of the normal gall-bladder? If the conjecture that the gall-bladder is a storehouse for bile were true, it should have some mechanism to force the bile out at proper intervals, but no one has ever seen the gall-

2. Hale White: Guy's Hospital Report, xlix.
3. Lartigau: Tr. New York Acad. Med., 1902.
4. Adami: Cirrhosis, Sajous Annual, 1898

5. Cushing: In Robson and Moynihan's Diseases of the Stomach and Their Surgical Treatment, 1904.

bladder contract. The muscles in its walls are very scanty, not to be compared to the muscle in the wall of the stomach or the urinary bladder. On the contrary, the gall-bladder is composed largely of elastic tissue and it seems most reasonable to suppose that its function is to take the pressure off the common and hepatic ducts temporarily, and also from the ducts of the pancreas, whenever the necessity arises. Since neither the pancreatic nor the biliary ducts have valves, they cannot protect themselves from abnormal pressure if for any reason the bile and pancreatic juices should not escape readily through the papillæ of the common ducts.

The ampulla of Vater is a small chamber in which the biliary and pancreatic secretions mix, and it may be said to resemble the carbureter of a gasoline engine. If the secretions do not escape readily into the duodenum, the back pressure may force the secretion of one organ into the ducts of the other with disastrous consequences.

Opie[5] has shown experimentally, and Halsted[6] has shown clinically, that pure bile injected into the pancreatic ducts will produce acute and usually fatal pancreatitis. In some of our cases of secondary operation at St. Mary's Hospital, in which the gall-bladder had been previously removed, we have observed that dilatation of the stump of the gall-bladder and cystic duct had taken place and that the common duct was almost uniformly dilated; evidently compensatory to the removal of the pressure-reducing gall-bladder.

A second function of the gall-bladder is the production of mucus, shown by the fistulas which follow the destruction of the cystic duct. When the bile passes into the gall-bladder it mixes with the contained mucus. If for any reason the ready escape of the bile into the duodenum is prevented, the mixture of bile and mucus (being subjected to greater pressure in the elastic gall-bladder than the pure bile in the liver ducts) fills the common duct. Therefore, if the contents of the common duct were forced into the pancreatic ducts it would be a mixture of bile and mucus, and not pure bile. Flexner[8] showed that when bile was mixed with mucus, experimentally, it did not produce acute pancreatitis when injected into the pancreatic ducts, but rather the chronic type of pancreatitis, if any harm at all resulted.

In studying the manifestations and complications of gall-stones, I have been impressed with the fact that 86 per cent. of all of the cases of pancreatic disease which we have seen at operation have been complicated with gall-stones. Seven per cent. of all patients with gall-stones in the gall-bladder operated on have had pancreatitis in some form, and in 27 per cent. of cases of stone in the common duct, marked pancreatitis was present. Courvoisier's[9] law holds good, that in 84 per cent. of cases of stone in the common duct the gall-bladder is contracted and practically functionless. We find pancreatic complications four times more frequent in cases of common duct stones than in cases in which the stones are still in the gall-bladder. That the gall-bladder is important as a means of protection, especially to the pancreas, is evident, and is a strong argument against its unnecessary removal.

Gall-stone disease is found to be much more frequent in women than in men. In 4,000 operations which we have performed on the gall-bladder and biliary passages (Feb. 25, 1911, C. H. and W. J. Mayo), 3,075 were in women, and 925 were in men, with an average operative mortality of 2.75 per cent. Eleven per cent. of the total number of deaths occurred in the cancer cases. That there is some cause for the phenomenon which relates to sex, and which cannot be explained by habits, diet, mode of living, etc., seems assured. We (the staff of St. Mary's) have operated on but 3 male patients for gall-stones who were under 20 years of age, while we have operated on 38 females under 20 years of age.

Ninety per cent. of married women who have gall-stones have borne children, and 90 per cent. of these women identify the beginning of the symptoms with some particular pregnancy. The liver of the female should, potentially, be larger than that of a male, since it must functionate for both mother and child. Strange to say, the weight of the female liver is relatively less than that of the male liver, being one fortieth of the body weight, while that of the male is one thirty-sixth of the body weight (Cunningham[10]).

Quiescent gall-stones often become active during pregnancy, and in a number of instances we have been obliged to operate for the relief of rapidly recurring colics, obstruction with infection, or to remove stones which had been forced down into the common duct during the pregnant state. Recovery was always speedy, and in no cases did the operation cause the spontaneous termination of the pregnancy.

The colic of simple gall-stone disease is usually most intense in the epigastrium, passing through to the back, sometimes to the right and occasionally to the left, but seldom radiating below the umbilicus. Spontaneous relief is usually accompanied by a feeling of movement of gas or vomiting, and the vomitus more often contains pure bile than does the material vomited in cases which might be mistaken for gall-stone disease. When the pain and tenderness passes into the region of the gall-bladder it is an indication of changes in the wall of the organ, and from this time on the patient does not secure the complete relief between colics which occurred in the earlier stages of the disease, but very often becomes a victim to dyspepsia, indigestion and stomach distress. This is so true that every patient with chronic gastric distress should be questioned intelligently in order to obtain an early history of gall-stone colics, since this information, having apparently no connection with the present symptoms, might easily escape the patient's mind.

Gall-stone disease sometimes causes serious circulatory disturbances. Endocarditis is one of the results, and while it occurs but rarely, it appears to be of a specific type, the development of the heart lesion being coincident with a gall-stone attack; and each exacerbation of the gall-stone disease is accompanied by an increase of the cardiac symptoms. We have operated on some patients with the heart in such condition as to render an operation or even an anesthetic a serious procedure, but the removal of the gall-stones and drainage of the gall-bladder has usually relieved the patient and stopped further cardiac damage, although the heart remained in a crippled condition.

While stones are the most common cause of cholecystitis, in many instances inflammation of the gall-bladder is not accompanied by stones, but nevertheless the patient requires operation for relief. The various forms of cholecystitis have been considered pathologically by MacCarty.[11] One of the fairly common varieties of

6. Opie: Diseases of the Pancreas, 1903, p. 30.
7. Halsted: Bull. Johns Hopkins Hosp., 1901, xii.
8. Flexner: Contributions to Medicine Dedicated to William H. Welch, 1901.
9. Courvoisier: Pathologie und Chirurgie der Gallenwegen, 1890.
10. Cunningham: Anatomy, Edition 3, 1909.
11. MacCarty: Ann. Surg., May, 1910.

XUM

the non-calculous cholecystitis is the so-called "strawberry gall-bladder," in which the mucous membrane has the appearance of a ripe strawberry.

Cholecystitis without stones is usually accompanied by habitual tenderness in the region of the gall-bladder. As a rule, colic is not a prominent symptom, and if present is not so severe in character as that accompanying gall-stones. There is often a mild constitutional disturbance, and in some instances, for months at a time, there will be a slight elevation of evening temperature (99 to 100 F.), but without marked loss of flesh; the patient complaining of lassitude and other symptoms of a chronic mild toxemia.

Non-calculous cholecystitis occurs in several forms; the two most frequent are the following: 1. The distended thin-walled gall-bladder contains several ounces of colon-infected bile, often with a foul odor. 2. The wall of the gall-bladder is thickened and white, often adherent and contains a thick, tarry material. In both of these forms the lymph-glands along the common ducts are enlarged. In one of our cases of cholecystitis of long standing (twenty years or more) these enlarged glands had become calcareous, producing sufficient pressure on the common duct to cause chronic jaundice.

Complications were found in more than two-thirds of the patients on whom we operated for gall-stones. Stones were found in the common duct in 492 cases, while serious complications involving the liver, duodenum, transverse colon, etc., were the rule. Carcinoma was found associated with gall-stones in 85 cases (2.25 per cent.). We have removed a number of gall-bladders for carcinoma, and in several instances have excised a piece of the adjacent liver. In cases in which the carcinomatous condition of the gall-bladder was sufficiently advanced to diagnose at the time of operation, the patients did not survive one year, but in a number of cases an early carcinoma was removed accidentally, so to speak, in removing thick-walled functionless gall-bladders, and five of these patients are alive and well at periods of from two to six years after operation.

Gall-stones are foreign bodies. Why delay operating until complications occur? In our experience simple operation for uncomplicated gall-stones has had a mortality of less than 0.5 per cent., and this might be called accidental, since it was due to the condition of the patient, rather than to the operation.

Early operation is relatively safe and the gall-bladder may be saved in a condition for future function. Fatalities can be traced in almost every instance to delay. That temporary palliation can be procured with non-operative measures cannot be denied (Carlsbad, etc.), but the cure of the patient can only be brought about by surgical measures.

In this connection may be noted the wide difference of opinion between the British and American observers, on the one hand, who urge early operation, and those continental observers on the other hand, who advocate delay in operation. One of the most prominent of the continental surgeons draws conclusions which may be epitomized as follows: 1. Stones in the gall-bladder do not require operation until they have produced marked changes in the wall of the gall-bladder, i. e., formation of tumor, etc. 2. A long incision should always be made in operating for gall-stone disease. 3. The ideal operation is removal of the gall-bladder. 4. Drainage of the hepatic ducts will usually be necessary. In reply the advocates of early operation would say: 1. In operating before gross changes are manifest the danger is minimized and the mortality is small. 2. In operating early an incision longer than is necessary to introduce the hand for exploration is not often required, and prolonged convalescence and the danger of hernia is avoided. 3. In early operations it is not necessary to remove the gall-bladder, and this valuable organ is saved. 4. Early operation relieves the patient before deep-seated infections occur which necessitate drainage of the liver ducts.

HOOKWORM DISEASE

PREVALENCE, HARMFUL RESULTS AND TREATMENT *

C. F. STROSNIDER, M.D.

GOLDSBORO, N. C.

PREVALENCE OF HOOKWORM DISEASE

Hookworm disease prevails in tropical and semi-tropical regions. Its distribution is now being studied in many parts of the world, and especially in our South; in every southern state a number of physicians are spending their entire time collecting data on its prevalence, and endeavoring as best they may to effect its eradication. Already it is known that the disease exists in Virginia on the Potomac River, in Florida, in Texas and in the intervening states, including North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Arkansas and Tennessee.

The following results of investigations which have been made will give some idea of the degree of infection among our people. Chamberlin in 1909 examined a number of southern recruits and found 60 per cent. of them infected. Later Siler in examining 105 recruits found ninety-three infected, which is 88.5 per cent. In North Carolina during the past summer the following examinations have been made with results as indicated (Figures collected by Dr. J. A. Ferrell, director of the North Carolina campaign):

	Examined, No.	Infected, Per Cent.
First regiment North Carolina soldiers	372	36
Second regiment, North Carolina soldiers	366	58
Third regiment North Carolina soldiers	149	32
Coast artillery North Carolina soldiers	218	30
N. C. A. and M. College (colored)	93	16
Presbyterian Orphanage, Barium Springs, N. C.	165	40

Odd Fellows' Orphanage, Goldsboro, N. C.:

	Examined, No.	Infected, No.	Infected, Per Cent.
Total	96	52	54
Girls	51	27	53
Boys	45	25	55
Counties represented	27	21	77

Methodist Orphanage, Raleigh, N. C.:

	Examined, No.	Infected, No.	Infected, Per Cent.
Boys	48	36	75
Girls	83	44	53
Total	131	80	61

Masonic Orphanage (colored), Oxford, N. C.:

	Examined, No.	Infected, No.	Infected, Per Cent.	Ascaris Present
Boys	50	6	12	35
Girls	58	7	12	38
Total	108	13	12	77

The children here, as in the other orphanages, range in age from 6 to 18 years.

Dr. B. W. Page, assistant to the Secretary for Hookworm Disease to North Carolina Board of Health, had 394 children at the Baptist Orphanage examined and found 38 per cent. of them infected. Dr. C. L. Pridgen, is also an assistant in the North Carolina Hookworm Campaign, working in the western section of the state. His examinations of school children showed the following: Fifty-four specimens from Mitchell and Yancey

* Read at the medical society meeting of the Fourth District of North Carolina.

counties showed twenty-eight infections with hookworm, and twenty-five with *Ascaris lumbricoides*. Twenty-eight examinations in McDowell County showed twenty-eight infections, or 73 per cent., and in the town of Marion in the same county, 54 per cent. of infection was found in thirty-five examinations.

Serving the North Carolina Hookworm Commission in same capacity as the two physicians last named and working in eastern North Carolina, I found the infection running somewhat higher than in the central and western sections of the state. In the Kinston High School fifty-one were examined; twenty-eight or 55 per cent. of them showed hookworm infection. At Magnolia in Duplin County, seven school children were examined and six were found infected. At Faison, in the same county, twenty-four people were examined whose ages ranged from nine to forty years, and thirteen were found infected. Other schools showed the following:

Wayne County, Eureka,	6 examined,	4 infected, or 66 2/3 per cent.
Wayne County,	21 examined,	19 infected, or 90.5 per cent.
Wayne County,	19 examined,	13 infected, or 68.4 per cent.

Moreover, Dr. K. A. Price, of Hickory, had fifty-six male college students examined and found nine infected. Examinations of school children are now being made in large numbers and the results of these will soon be obtainable. At this time only the figures above given are in my possession. The figures given tend to show that the disease exists in all sections of the state, but that it is more prevalent in the eastern counties. This may be due in part to the fact that the soil is largely sandy and level, factors favoring the propagation of the hookworms; in part to the fact that the negroes, who are regarded as extensive worm-carriers, though they suffer but little from the disease, are more densely settled in the east than in the west, and in part perhaps to the fact that the counties in the tide-water belt have longer and warmer summers than the mountain counties.

Further information on the prevalence of the disease in the state may, it would seem, soon be obtained from our general practitioners. During the first three months of 1910 they sent to the state laboratory only seventy specimens for examination. During the second quarter, which ended June 30, they sent in 486 specimens, and during the three months ending September 30, 1910, they sent in 2,421 specimens. If their interest in the work continues to grow with such rapidity the distribution of the disease may be known to a certainty.

HARMFUL RESULTS

The thorough discussion of the far-reaching harm resulting from hookworm infection would be too lengthy for the present paper. Dr. H. F. Harris, secretary to the Georgia State Board of Health, says: "In no other disease does the victim suffer so long; in no other condition is he for such a period a menace to those about him; in no other malady of such gravity is treatment so rapidly and surely successful." The more immediate results of the disease are of vital importance.

Perhaps the harm produced by the worms will be more easily explained if first a word is given to the characteristics of the worms. They are blood-sucking parasites, varying in length from one-fourth to one-half inch; in numbers they range from less than a hundred to more than four thousand in a single victim of the disease. They inhabit the small intestine and attach themselves by their mouths, which are supplied with powerful muscles, teeth and sucking surfaces, to the mucous membrane. They move from place to place in feeding on the blood they suck from the flesh, each time making a new wound. The loss of blood resulting from their action is of greatest importance. Much blood is drawn directly into the bodies of the worms, but a more important loss perhaps occurs through the minute hemorrhages from the wounds which they make. So great is this latter loss in some instances that the blood in the stool of the victim may be recognized by the naked eye; if it is less, it may be detected by the usual chemical tests. Ordinarily the loss of blood would be somewhat dependent on the number of invading parasites. There are cases, however, in which the number of worms present seems to account only in a remote degree for the symptoms produced. The patient's age, his constitution, his digestive system, and his power to manufacture new blood are points which determine, to some extent, the amount and effect of the loss of blood.

A second harmful result is the poisoned system. The worms are supposed to secrete and inject into the flesh a hemolytic poison, which, moreover, prevents the coagulation of blood in the wounds, from which, therefore, much blood is lost by oozing. Moreover, the excrementitious products from the worms are poisonous, and since the wounds offer points for easy entrance of pathogenic organisms, in many instances the wounds are followed by suppuration, and poisons from such places, when absorbed, increase the general poisoned condition of the patient's system.

In addition to the loss of blood and the poisoning of the system should be mentioned the damage done to the intestine. The numerous bites, together with the poison, give rise to a chronic catarrhal inflammation of the intestine. This impairs digestion and causes tenderness in the epigastric region. To this may be added what is really of sufficient importance for separate consideration. With much denuded and diseased mucosa exposed, disease organisms, particularly tubercle bacilli, and typhoid bacilli, which find entrance into the intestinal canal with food or water, easily pass into the lymphatic or blood-currents and ultimately overwhelm the defenseless victim with the disease they produce.

The secondary changes which result from the hookworms will be best understood by discussing them in connection with the symptoms of the disease. Anemia, with its important effects on all nutritive and metabolic processes, accounts for most of the striking features presented by a hookworm victim, such especially as physical and mental weakness. It also predisposes the person to other diseases and in many instances the ensuing complication is regarded as the primary cause of the death of the person.

For convenience of description I shall classify the disease, according to its harmful results, into four divisions; namely, mild, medium, severe, and very severe.

Mild Cases.—In the mild cases we have, at present, no recognizable symptoms, and they are only diagnosed by the microscope. Though I have found in adults mild digestive disturbances, such as slight reduction of digestive ability, tenderness, pain, and discomfort in the epigastrium, accompanied by nervousness. (This is by no means constant.) Sometimes only a small number of worms are present; again 200 to 300 worms may be present and not produce recognizable symptoms (Dock and Bass).

Medium.—Cases of medium severity have little pallor or have a slightly dirty, yellow tinge of the skin in whites, and a slight pastiness in mulattoes. There is a reduction in the normal amount of perspiration; the appetite is frequently excessive. There may be uneasi-

ness, pain or tenderness in the epigastrium, frequent attacks of meteorism, slight dyspnea on exertion, palpitation of the heart, dizziness, headache, lack of attention to details, and a little stupidity. The muscles are flabby, and weakness and indisposition to labor exists (laziness). The hemoglobin of such persons generally is between 60 per cent. and normal. Joint pains, especially in the sternum, constitute a frequent symptom. The temperature may range from 99 to 101 F.

Severe Cases. — Here all symptoms noted under medium cases are more prominent. The pallor is definite, the mucous membranes are paler than normal, and where the same form a juncture with the skin it often fades away so gradually as to be imperceptible, the skin is quite dry, and sweating is rare. The appetite may be exaggerated or diminished. Nausea is frequent. The tongue is coated and often flabby and enlarged. Tenderness of the epigastrium, with spontaneous pain on gentle pressure at times, is present. (In sixty inspections followed by microscopic examination, this sign has proved positive in every one, being the most constant, most suggestive and most marked of all signs or symptoms.) Breathlessness is easily brought about by the slightest exertion. There is often a hemic murmur of the heart. There may be much pain in the sternum and chest, with a feeling of weakness of the knees and legs. There is much dizziness, especially on sudden changes of position, noise in the ears and frequent headaches. The mental condition is decidedly depressed, and the patient is quite passive to his surroundings, and presents a stupid appearance. The patellar reflex may be either exaggerated or diminished. Patients complain of cold and tingling of the feet, which frequently go to sleep; the muscles are flabby and may be slightly painful; joint pains are so common that a diagnosis of rheumatism is often made. Work is performed with great effort and is deficient in both quality and quantity. In about ten days after ground-itch appears the patient usually develops a sore throat, a slight bronchitis, and a temperature ranging from 99 F. to 102 F. The skin is waxy, tallow or tan color. Edema of the face may be present. The hemoglobin is apt to be between 45 and 70 per cent.

Very Severe Cases.—A case in this stage of the disease may terminate fatally at any time. The skin is tan or tallow-colored. Edema of the feet and ankles alone, or sometimes extreme anasarca may be present. The appetite may be slight or enormous. Nausea and vomiting are frequent. Ascites may be alarming. Diarrhea often alternates with constipation. There is distressing dyspnea on slightest exertion, severe palpitation of the heart, pericordial pain, rapid, weak and compressible pulse, and often dilatation of the heart; marked pulsation of the vessels of the neck; dizziness and tinnitus aurium are extreme; patellar reflex is abolished. In men impotence is an almost invariable symptom, and amenorrhea in women. The intellect is dull and the patient seems confused and stupid. The facial expression is anxious and stupid. There is a tendency to dilatation of the pupil, and blurred vision exists. The urine has a low specific gravity, is abundant in quantity, and usually contains no albumin. The muscles are flabby, sore and painful. Extreme weakness is observed and the patient is incapacitated for labor. There is often irregular fever, with intervals of subnormal temperature.

Acute hookworm disease may occur without previous infection, or an acute attack may supervene on a chronic infection. These acute attacks occur in the spring and summer, and their symptoms vary with the severity of the infection. Should sufficient infection occur, there will be a sore throat, and bronchitis, nausea or vomiting, a chill and diarrhea, epigastric pains or colic, rapid anemia, and elevation of temperature as high as 101 or 102 F. One difference between acute and chronic cases is that the skin is waxy white with severe anemia, whereas in chronic cases, with the same amount of anemia there is a more yellow tinge ("tallow-faced"). Children with acute hookworm disease have not the "pot-belly" present in so many of the chronic, severe cases. In very severe infections, as in Claud A. Smith's experimental case, great swelling occurs on the second and third days. Loose has noticed red lines running up the leg—probably a lymphangitis.

Nervous System.—Insomnia and night terrors are quite common, because of motion of the worms. Somnolence often occurs, and the patient keeps awake with difficulty. Lack of ambition and lassitude are noticeable. After administration of thymol the temperature frequently rises to 102 or 104 F., usually subsiding in twelve hours. I offer the following explanation of this phenomenon: When the thymol comes in contact with the worms they become very active; the thymol causes them to vomit and purge most of their ingested blood (Bass); at the same time they eliminate a large amount of toxin; much blood escapes from their points of attachment. Therefore, if the hookworm toxin acts as a direct poison, and the blood absorption acts as an auto-intoxicant, I feel that a rise in temperature would be accounted for.

QUESTIONS BEARING ON POSSIBLE ADDITIONAL HARMFUL RESULTS

1. May not many cases of neurasthenia and hysteria be attributable to hookworm disease?

2. Could not such perversions, among hookworm patients, as disobedience, profanity, lying, stealing, drinking, forging, and sexual perversions be attributable to hookworm disease, provided recovery followed cure of the hookworms?

3. Is not chlorosis or "green-sickness," in many cases a result of uncinariasis?

4. Is it not probable that a number of cases of defective eyes and ears, and diseased tonsils and adenoids could be attributed to the same cause?

5. Is it not true that many abortions and miscarriages can be attributed to anemia resulting from hookworm disease?

6. Does not observation show that, as Dr. Nicholson of Onslow County says, whereas the average eclampsia with first child in the United States is 1 to 250, in women suffering with hookworm disease the average is 1 to 50.

7. Is it not probable that many women die from shock during labor as a result of hookworm disease?

8. Is it not a fact that, as a result of this disease, many women cannot furnish sufficient milk to nourish their babies?

9. Is it not a fact that hookworm disease is the cause of more amenorrhea, dysmenorrhea, and scanty and irregular menstruations, than any other disease in our South?

10. Is it not a fact that a hookworm patient, pregnant, quite often suffers with a severe dropsy, and often after delivery may run an irregular temperature for some time and fail to react to tonics or quinin?

TREATMENT

External.—Ground-itch in the papular or vesicular stage may be treated with a 5 per cent. salicylic acid suspended in collodion. This usually cuts the attack of ground-itch to one or two days. During the pustular state, the wound should be cleansed and cauterized with silver nitrate and then a dry dressing of 5 per cent. boric acid and zinc oxid ointment applied twice daily.

When great swellings occur hot applications should be used. To allay itching and prevent secondary infection a combination 5 per cent. zinc oxid and salicylic acid ointment applied locally, twice daily, is recommended. It is important to keep the foot bandaged or covered to prevent scratching or rubbing.

Internal.—Treatment should be begun on the fifteenth day from date of the ground-itch and repeated once. The same treatment should be instituted after an attack of ground-itch as if eggs were present in the stools, thus getting rid of the worms before they reach maturity and have done much harm. The stools should be examined at the end of six and twelve weeks from the attack of ground-itch for eggs of any worm that may have escaped previous treatment.

Preliminary.—The first step is to remove the protecting chyme and mucus by a large dose of salts—Rochelle, Epsom or Glauber's—four hours after the last meal. Sodium sulphate dissolves and removes the intestinal mucus best. The drugs used to kill or expel the worms are thymol, betanaphthol and male-fern.

Dose of Thymol.—The dose for children should be in proportion to the size, apparent age, and physical condition. Ashford and King give the following table of doses, to be regulated, in the case of children, rather by size than by actual age.

	Grains.
Under 5 years	7½
5 to 10 years	15
10 to 15 years	30
15 to 20 years	45
20 to 60 years	60
Over 60 years	30 to 45

I have been giving about 2 grains per year up to the age of 30, the same to be administered in two equal doses two hours apart. Unfavorable conditions, such as great weakness, extreme anemia, diarrhea, cardiac depression, pregnancy, and dropsy, require a smaller dose.

Mode of Administration of Thymol.—This should be given in two or three broken doses to prolong its presence in the upper bowel. Because of its tendency to pack together under pressure or in the mucus in the intestine, equal parts of sugar of milk or some other soluble substance should be mixed with it. To prevent its burning of the mouth and throat, it should be given in cachets, wafers, or capsules; it may also be given suspended in either mucilage or syrup of acacia or some simple syrup. The patient should lie on the right side and refrain from drinking much water, to prevent vomiting. After two or three hours another brisk purgative of salts (never castor oil) should be given to prevent its absorption. The patient should remain in bed until the thymol is moved off. Either the bed-pan or the commode should be used in the room to avoid possible fainting.

Diet During Thymol Treatment.—To keep the alimentary canal clean, no food or drink, except water, should be allowed from the time the preparatory purgative is given until the purgative following the thymol has acted well. If the patient is weak or faint, or if the burning in the stomach is excessive, a little warm coffee may be allowed. The diet need not be restricted after several free movements have occurred following the post-thymol purgative, unless there is some special indication. The treatment should be repeated once a week until examination of the stool, washed through a piece of cheese-cloth, shows no worms, or the microscopic examination shows no eggs.

Saturday evening and Sunday is the most convenient time to administer the treatment to working people and school children. The salts purge should be given Saturday evening and thymol begun early Sunday morning. For example, Saturday at 8-9 p. m. sodium sulphate may be given; Sunday at 6 a. m., thymol; Sunday at 8 a. m. thymol again; at 10 a. m., sodium sulphate. Until 4 p. m. the patient should not eat, or drink anything except water, and but little of that.

Caution.—Oils, fats (milk or butter), patent medicines, or beverages containing alcohol should not be allowed during thymol treatment. Thymol may affect the patient in one of three different ways: by intoxication, by irritation of the kidney, and by irritation of the stomach and intestine. The effects of absorbing a large amount of thymol are depression, headache, weakness, dizziness, tinnitus, nausea, unconsciousness, rapid, weak pulse, and sometimes profuse sweating and subnormal temperature (about ½ gr. of thymol is soluble to the ounce of water). The effect of thymol on the gastro-intestinal canal is occasional epigastric pain, nausea and vomiting, and more or less diarrhea. Therefore gastritis, and diarrhea or dysentery are contra-indications. About half a dose should be given to a very weak subject the first time.

Treatment of Toxic Symptoms.—Cardiac stimulants should be given, morphin and atropin, strychnin, digitalin or ergot, subcutaneously, and hot coffe per rectum. Alcoholic stimulation should be avoided. The patient should be kept recumbent. Hot blankets should be applied to the body and a warm water enema used.

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SANITARY CONSIDERATION OF HEALTH RESORTS

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The recommendation of health resorts is frequently expected of physicians who unconsciously assume the risk, little thinking what effects, both good and bad, the individual town or hotel may have on its guests. Convalescents, travellers and vacationists visit the health and summer resorts unsuspecting of any danger or with the confidence that the conditions are as the physician assumes or expects. The mere mention or naming of a resort by a physician is considered a recommendation and a therapeutic direction to be followed as any other therapeutic order. Opinions of resorts must be formed from personal observation, from description by others, or advertisement. There is an avoidance of the whole truth in many advertisements, yet these misstatements or evasions are accepted without question, and serving as the directing force, may ultimately end disastrously to the guests and finally to the resorts.

Had one physician, referring to a western town as a well-known health resort, known its true condition and the possibility of contracting typhoid fever there, he would have pronounced it anything but a health resort.

Up to the present there has been no proper sewerage in the town. The water-supply is obtained from driven wells located within the city limits. The subsoil is badly polluted with sewage which, unless a change is made, must inevitably dangerously pollute the water-supply, thereby causing an epidemic which may be extensive and serious to the victims, besides ruining the reputation of the resort.

There being such a multitude of resorts in each state, and it being impossible to learn of the conditions in the various localities and resorts, there is needed some method by which the desired information may become available. Physicians should know what constitutes safety in a particular resort, and should give recommendation to the safe ones rather than condemnation to the backward or careless places. In consequence of this recognition of the dangers of certain resorts these places, aided by private or official instruction, will learn the value of sanitary conditions, and appreciate that it is necessary in their competition for existence.

Many resorts are ideal, but it is the occasional hotel or town, conducted blindly, without any medical or sanitary supervision, which becomes a risk amounting to a menace. When a resort installs sanitary conditions and maintains an active regard for the health of its patrons it should be publicly recognized as safe. Sanitary conditions imply much more than plumbing fixtures. If the resort furnishes pure water, pure foods, and has eliminated noxious gases, plants and insects, and becomes in no way a distributing station for environmental or infectious diseases, it deserves the recognition and patronage of physicians. In publishing any list of safe and well-equipped establishments there should be no discrimination against the smaller resorts in favor of the larger, stronger and more wealthy places. The resorts should be judged not alone by their financial outlay or advertisements, but by their activity in maintaining true health-giving conditions.

The resorts which are not safe are in such condition more from ignorance than indifference, and from an inability to understand what constitutes lack of sanitation rather than from a disregard for the safety of others. The proprietors of such places need instruction in what constitutes sanitary requirements, what is purity in water and foods, how infection may be transmitted and how to guard against disease. The information is more welcome when presented in a manner to show the influences each objectionable condition can have on the proprietor's family and guests and on his income and prosperity. If an utter disregard for the safety of the patrons is evinced, it may be necessary to use other than suasive measures. Then official threatenings, legal force or publicity of conditions may be judged by some to be required. Such was the opinion of the New York State Department of Health, which considered itself obliged to publish the names of some sixteen resorts in that state, warning the public of the many dangerous conditions maintained.

The revolting conditions in a few resorts may be cited: One hotel discharges sewage into a lake only a short distance from its water-supply intake; another hotel takes its water from a small lake which receives the sewage of hundreds of people; ground directly beneath the hotel guests' windows is covered with the overflow from cesspools; in spite of window screens I found many anopheles in my hotel room every morning; a well supplying drinking-water to a hotel is within thirty feet of a privy, another within ten feet; toilet accommodations are notoriously insufficient and out of repair in some hotels; one hotel disposes of its garbage by emptying it along a roadside; a resort town has its water-supply pipe laid in the same trench with its sewer, the outlet of the sewer being within three feet of the intake of the water-pipe in the same stream. The main sewer of one well-known shore resort discharges on its most frequented bathing beach.

These resorts are the exceptions; but it is these exceptions which constitute the dangers and should be eliminated. Other resorts, on the other hand, are equipped with water-filters and sewage disposal plants of the highest efficiency, and take extreme care to preserve the purity of all surroundings and supplies. One actively prohibits the fertilization of fields within five hundred feet of the stream which is its water-supply, and no water from barnyards or even remote privies can enter the stream.

An attempt to collect sanitary data by mail failed, owing to many not replying, many not appreciating the value of details, and other health officers not being versed in the conditions of resorts in their jurisdiction or not being able to judge of safety. One officer declared there was no opportunity of their supply of river water being polluted, "except from towns above this." Another town obtaining water from the lake into which the sewage is discharged declares there is no danger of pollution.

Owing to the neglect of sanitary conditions and the refusal to listen to warnings there have occurred in isolated hotels outbreaks of typhoid which resulted in numerous deaths, public condemnation, loss of prestige and business failure for the hotels.

The sanitary inspection and control of resorts should be one of the duties of the state board of health. For four years the New York State Department of Health has been carrying on activities among its mountain and shore resorts with good effect. The resorts were mostly found in satisfactory condition, but there were occasional evasions of esthetic and sanitary requirements. Of twenty-six resorts in the Raquette and Saranac water-sheds, inspected in 1908, only seven obtained their water-supply at a distance from the resort grounds and away from any possible source of pollution. Two resorts used lake-water; twelve discharged into lakes. The pollution of lakes and bathing beaches constitutes a serious danger. Of twenty-four resorts on Long Island, reinspected in 1908, ten failed to comply with the orders to abate nuisances. As a rule the proprietors are willing to make corrections, but are ignorant of what constitutes dangerous conditions. The welfare of the guests at some localities is admirably protected as at Upper Saranac, Richfield Springs and Sylvan Beach. There are many resorts, from Bar Harbor to Pinehurst and Los Angeles, which have spent much money in obtaining pure water.

In maintaining state sanitary control there should be classed as health resorts all towns usually advertised or considered as resorts, hotels used by summer or winter visitors or vacationists, pleasure and recreation resorts, parks and camps, the so-called watering places, the so-called medicinal spring resorts, bathing or watering places patronized by excursionists, and localities or institutions advertised as sanitariums or sanatoriums. All of these places can strictly be classed as sanitariums or sanatoriums, for to them people go with the hope of acquiring or maintaining health. The Travellers' Protective Association recently recommended the enactment

of state laws placing all hotels under state inspection and fixing a standard of sanitary efficiency and safety as the principal requirement for license. The adoption of such legislation seems desirable.

Mineral spring resorts should be placed under licensure. A committee of competent and accepted authorities should be delegated to determine the status of these resorts and the medicinal value of their treatment and vended waters. License should be granted only after frequent sanitary inspections, and after the advertised analyses of waters and all advertisements and resort literature comply with the true virtues of the waters as expressed in the opinion of the medical authorities. Misbranding in the advertisements of these and other resorts and hotels is a menace to health, since people place dependence in the resorts without consulting physicians. The widely circulated assertions that certain mineral springs will cure long lists of diseases places these resorts on the same footing with nostrums and exerts a damaging influence on those baths which possess great value in the treatment of certain specific diseases. The misbranding of resorts becomes a crime. The enforcement of truthfulness in the literature and advertisements of all places and objects on which people place dependence for health and life becomes a state's duty. If a resort commits the double crime of wilfully or knowingly deceiving people by concealing its dangers, publicity of conditions and public condemnation of that resort would seem to be just.

In cities it is more practical to keep the infected transmitting agents away from the people; but in small resorts or isolated hotels it is more practical to keep the infected people away from the agents which they may infect; as, in cities to keep the infected mosquitoes away from the people; in resorts to keep the infected person screened from the mosquitoes. The controlling influence must be exerted against the infected carrier which is in lesser numbers and more easily isolated, whether it be man or insect, food or dirt, water-supply or sewage.

Too much reliance should not be placed on crude mortality rates when judging the healthfulness of a locality. Only when statistical tables are calculated to consider age groupings and individual susceptibilities can the figures be considered of much value. The general death-rate of a town may be high from a large infant mortality, yet the place be perfectly healthy for visitors. The mortality rates may be low, owing to native insusceptibility, but the danger to visitors great. In a healthy town the rate may be augmented by diseased persons going there for the benefit they may derive. The influence of hospitals within the city or in adjoining cities and the factor of imported or exported cases should be considered, and receive an allowance in the published rate. Some towns, like one large resort, unrightfully glory in a low rate by transporting their patients to hospitals in other cities, or because their transient visitors develop symptoms only after returning to their homes. Large cities are unjustly obliged to bear the burden of including in their rates many cases which have been contracted through the carelessness or ignorance of other localities. Statistical records which are used for comparison should include only those cases which originate within the town. The summer distribution of a town's population throughout the infected areas of the country is the factor, more than any other one, which is accountable for the great rise in the typhoid mortality in the fall. It has been estimated that 22 per cent. of the typhoid cases in the District of Columbia are imported. Ten per cent. of the cases in Philadelphia are imported, the ratio in the fall (1909) being over half. In 1909 of 2,336 cases of typhoid fever 231 were proved to have been imported, twenty-nine of these cases coming from one summer resort. Twenty-eight of the other cases originated in other resorts.

Eliminating the statistical factors of susceptibility and age grouping, some idea of the existing conditions may be gathered from the typhoid rates in the registration area. The general rate for the area for 1907 was 30.3; for 1908, 25.3 per 100,000 population. Colorado, a resort state, was highest with a rate of 47.7 in 1908 (63.7 in 1907). The fact that Pennsylvania's rate of 50.3 in 1907, was reduced to 23.9 in 1909, shows what can be accomplished through the energy and work of a state department of health. Of the registration cities in 1907, the typhoid list was headed by Escanaba, Mich., a lumber town and summer resort, with a record of 220.2 (126.5 in 1908). The notoriously high rate of Pittsburg (130.8 in 1907) was eclipsed by Jacksonville, Fla., with a rate of 155.1, yet the dangers to health of the latter place are rarely mentioned. The excessive rate of Niagara Falls (126.6 in 1907) may fortunately soon be lowered, for in place of furnishing Buffalo's sewage, purified water may soon be supplied from an effective filtration plant. Philadelphia was long called a typhoid-infected center, yet a comparison with cities which people unsuspectingly visit expecting to regain health, will indicate misplaced conviction.

TYPHOID MORTALITY RATES OF RESORT TOWNS

	1907.	1908.		
Escanaba	220.2	126.5	St. Petersburg	80.7
Jacksonville	155.1	104	Havana	39.3
Niagara Falls	126.6	....	Paris	21.7
Key West	109.8	44.4	Montevideo	18 8
Salt Lake City	93.2	47.4	Brussels	17.2
Savannah	77.3	22.5	Rio Janeiro	15.9
Sacramento	76.7	97.8	Vienna	5.1
Denver	67.1	54.8	Berlin	5
San Antonio	66.9	44	Stockholm (1907)	4
Long Branch	60.9	60.6	London (1907)	2
Saratoga Springs	52.9	....		

San Antonio's rate does not indicate the quality of her water, which comes from clean artesian wells far outside the city. The recent epidemic at Montreal disclosed the condition of her water, which is taken from the St. Lawrence below the sewer outfall.

The malarial mortality rate of the registration cities gives prominence to some conditions and may surprise some health seekers. In 1907 Savannah headed the list with a rate of 111.6 (122.3 in 1908), followed by Memphis and Jacksonville (78.8 in 1907, 58.3 in 1908). The 1908 rate of Charleston was 44.3, while that of New Orleans was but 19.5. It is unfair to judge the health activities of a locality by a mere comparison of rates or by the apparent rapidity of their decline. The conditions with which health officers must contend are variable and in some places almost insurmountable.

Physicians should not be reticent about giving unasked advice, but when opportunity offers should assist hotel proprietors to improve conditions. When the proprietors use such means as are at their command to improve and to maintain health-giving conditions there will be stamped on their resorts a recognition of safety, with the inevitable result of public appreciation, increased prestige, more publicity and more business. The confidence of the public is the chief asset of a resort. It is the forte of sanitarians not to antagonize or to bankrupt, but to instruct, to assist the resort-keepers to install and to maintain resorts in their highest efficiency, and to teach that healthfulness and sanitary safety mean increase of popularity and prosperity.

TRICHINIASIS IN ITALIANS

FOLLOWING THE EATING OF RAW HAM OR "PROSCIUTTO"

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The Italians give much thought to the preparation of their food, palatability being of prime importance, while care in the selection—especially of animal food—seems to be secondary.

I have seen two cases of trichiniasis among Italians in private practice within the past year; and have collected ten other cases from the records of the Boston City Hospital, admitted within the past five years, six of these ten cases being directly traceable to the ingestion of raw ham. These latter cases were among Italians, and the infection was traced to the same source; that is, smoked ham, or "prosciutto." There was one death among the twelve cases.

This raw ham, or prosciutto, was, up to two or three years ago, imported in fairly large amounts, but the recent advance in the cost of food products has made the importation almost prohibitive. The imported ham, however, may be obtained in about every second delicatessen store in the Italian quarter of Boston, and costs about fifty cents per pound. The home-cured or domestic prosciutto is also obtainable for about thirty-five cents per pound, and is cured by the local delicatessen dealers.

The ham which is offered for sale is cut in very thin slices and is eaten in the entirely raw state between slices of bread. The curing process evidently does not kill the trichinæ.

In the cases which came to my attention, the imported ham was probably eaten, according to the statements of the persons who bought it; but so little reliance can be placed in the testimony of the patient, either through fear of prosecution of their dealer, or through fear of having personally committed some breach of the law, that it has been impossible to determine whether they were due to the domestic or imported ham.

The disease, trichiniasis, is much more common than is supposed, and every writer in considering it calls attention to the fact that it is too frequently overlooked. It is moreover, almost always one of easy diagnosis.

H. U. Williams[1] of Buffalo states that in a series of 505 unselected autopsies in persons having died from causes other than trichiniasis, the organism was found in 5.3 per cent. McCollom[2] reported eight cases and one death in an epidemic which occurred in Boston in 1892. Grawitz[3] states that one-third of the cases of muscular rheumatism showed trichinæ at autopsy. F. H. Drew[3] in 1892 reported an epidemic of fifty cases and four deaths. The nature of this epidemic was not recognized until three deaths had occurred, and although witnessed by three physicians, it was not until the fourth week that the disease was even suspected.

In five cases which I have seen, the symptoms in each were practically identical. The first signs of disturbance were puffiness, and a very slight redness of both upper and lower eyelids, and, in most cases, there was in addition, a slight puffiness of the face surrounding the region of the eyes. Pain quickly appeared in the muscular structures, varying in proportion to the amount of motion made with the muscles. Those most complained of were the masseters, the muscles of the back of the neck, those of deglutition, the diaphragm, and the muscles of the extremities, especially of the calf of the leg and the biceps of the arm.

The digestive disturbance was slight, amounting to some nausea, a sense of distress in the stomach region, sometimes amounting to actual pain, the latter possibly due to involvement of the diaphragm, which is a favorite site for the lodgment of the organism. There was considerable diarrhea in almost every instance. Distinct chills, or chilly sensations, often accompanied the period of muscular invasion. The temperature was moderately elevated, reaching 104 degrees in one case. The pulse followed the temperature and varied from 90 to 100.

One of the greatest aids in the diagnosis is the increase in the number of eosinophils in the blood. This seems to be invariably present in the acute stages. Their numbers vary both during the course of the disease, and with the severity of the infection. At the onset they are usually few in number; in one of the above cases they numbered only 4 per cent. at the beginning, before the muscular pain became severe. As the disease progressed, they continued to increase and numbered 55 per cent. on the fifteenth day. One very mild case showed not more than 10 per cent. at any time.

These eosinophils differ from the normal in the following respects: The granules are fewer in number, less distinct, and do not have as punched-out and clean-cut edges. The acid stain is not taken as brilliantly. It is possible that these morphologic differences are due to the fact that they are young cells.

The course of the disease in the above-mentioned cases was perfectly typical, and lasted from three to six weeks.

It should be borne in mind that although the disease is more commonly found in the hog, trichiniasis in man has arisen from the ingestion of trichinous beef,[4] geese, rabbits, and dogs. In a commission[5] appointed by the German government for the study of trichiniasis, the workers reported that trichinæ were digested by the larvæ of flies, and one or two young rabbits were infected by feeding them the trichinous larvæ.

There is no known drug which will kill the parasite either within the intestines or after it has reached the muscles. The treatment now recommended is an initial purge, preferably of castor oil or calomel, followed by Epsom salts in doses of one-half or full teaspoon doses daily. Thymol in 5 grain doses three times daily is given as an intestinal antiseptic. If the muscular pain be severe, opiates may be used.

CASE REPORTS

CASE 1.—Tony P., aged 24, Italian, was seen August 28, 1909.

Family and past history were negative.

Present Illness.—The patient ate prosciutto at a friend's house Aug. 21, 1909. Six days later his eyelids began to swell and, on account of his appearance, he was accused by his family of having been drunk the previous night. On account of the pain in his muscles he consulted me the following day.

Examination and Course.—Physical examination showed both upper and lower eyelids distinctly swollen and slightly reddened; the whole face was slightly fuller than normal. He complained of pain in both masseter muscles, in those of the back of the neck, on swallowing, in the region of the diaphragm, in the arms, and especially in the calves of the legs. There was considerable prostration and a sense of muscular weakness which became marked during the following two or three days. The temperature was 98.6 F.; respiration 20; and the pulse

1. Osler, W.: Practice of Medicine, 1901, p. 356.
2. McCollom, J. H.: Boston Med. and Surg. Jour., cxxvii, 59.
3. Drew, F. H.: Boston Med. and Surg. Jour., cxxvii, 61.
4. Glazier, W. C. W.: Report on Trichinosis, Marine Hospital Service, 1881.
5. Bericht des zur Erforschung der Trichinen-Krankheit von der k.k. Gesellschaft der Aerzte Ernannten Comités, Wien, 1867.

80. The urine was negative. An examination of the blood showed hemoglobin 100 per cent.; white cells 12,000; red cells 6,500,000; and an eosinophilia of 6 per cent.

September 1, 1909. The patient complained of general muscular pain and muscular weakness. Temperature 103.5 F.; pulse 100; respiration 24; physical examination as before, save that in the bases of both lungs there were a few coarse râles.

Without my knowledge or consent the patient was seen by another physician the day before who had made the diagnosis of laryngitis and muscular rheumatism, and had painted his throat with some form of iodin, and had prescribed salicylates.

An examination of the blood showed hemoglobin 100 per cent.; red cells 6,496,000; white cells 22,000; eosinophils 29 per cent.

Under cocain a small piece of muscle was taken from the gastrocnemius, which showed, under the microscope, many trichinæ in active movement. The temperature and pulse remained elevated for about ten days; then, gradually falling, became normal on the sixteenth day. The symptoms subsided with the temperature. Further recovery was uneventful. Although careful and prolonged search for worms was made in the stools at different periods in the disease, none was found.

A friend of this patient, who had also eaten of the ham, was soon taken with symptoms similar to the above, and was confined to his bed for eight weeks. According to the statement of my patient, the nature of the sickness of this friend was not well understood.

CASE 2.—M. D. V., aged 23, Italian, was seen Dec. 6, 1909. Family and past history negative.

Present Illness.—The patient has been in the habit of eating raw ham. Six days ago he noticed a swelling of the eyelids and face, and complained of pain and swelling in the arms and legs, and an occasional chilly sensation.

Examination and Course.—Physical examination showed face and eyelids puffy, with tenderness especially of the muscles of the calves of the legs, thighs, and forearms. There was slight general edema. The white cells were 16,000; eosinophils 17.3 per cent.

December 10, 1909.—Condition of patient had remained about the same; temperature was still elevated; complained of much pain in moving the extremities. The white cells were 9,500; eosinophils 13 per cent.

December 16, 1909, the patient complained of great loss of strength. An urticaria had appeared on the trunk and extremities, accompanied by severe itching.

December 17, 1909. White cells 19,000; eosinophils 39 per cent; slight improvement in general condition.

December 23, 1909. White cells 12,400; eosinophils 33 per cent. The patient was well enough to be up and about.

January 3, 1910. White cells 11,000; eosinophils 23 per cent. The patient desired to go home, and although advised to remain at the hospital, he refused, and was discharged Jan. 5, 1910.

In the prevention of trichiniasis, little can be done under local boards of health, or by inspection under federal control, on account of the great cost and other difficulties, legal, financial and practical. The federal law now states that "meat food products imported into the United States shall be accompanied by a certificate of official inspection of a character to satisfy the Secretary of Agriculture that they are not dangerous to the health. The certificate shall set forth the official position of the inspector, and the character of the inspection, etc. . . . The official inspector who signs the certificate shall have his authority viséed before the United States consul" [at the point of exportation].

That the present laws in regard to inspection are of little value is shown by the foregoing cases.

CONCLUSIONS

1. Trichiniasis is more common than is generally supposed, being erroneously diagnosed as typhoid, muscular rheumatism, influenza, laryngitis, neuritis, nephritis, and many other diseases.

2. The diagnosis is not difficult, if in every case of generalized muscular pain a differential count of the leukocytes is made, and, if possible, a bit of muscle excised for examination.

3. More rigid examination should be made at the ports of entry, of foreign meat products, especially those of pork.

4. The eating of all raw animal foods—sausages, ham, smoked beef, and the like—should be condemned. Much can be accomplished by the physician who comes in contact with the Italians, in pointing out the dangers of eating underdone or raw pork foods.

405 Marlborough Street.

TREATMENT OF THE PARALYSIS FOLLOWING ACUTE POLIOMYELITIS

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The anatomic relation between the motor nerve-cells of the anterior horn and the muscles of the body is very complex. In this connection Lovett and Lucas[1] have pointed out that the motor cells are arranged in spindle-shaped bundles or groups, extending frequently through several segments of the spinal cord. Whether each motor nerve-cell group represents an anatomic set of muscles, or a functional grouping, has not been determined, but it is known that one group, or center, will sometimes send impulses to two or more muscles; and, on the other hand, one muscle may receive motor impulses from more than one nerve-cell group. The bearing of these facts on the lesions produced in the cord by poliomyelitis and on the treatment of the paralysis following acute poliomyelitis is most important.

Recent investigation has shown that the virus of acute poliomyelitis causes a profuse inflammation within the spinal cord, the most pronounced result of which is an injury or destruction of the motor cells of the anterior horn. This injury or destruction of the nerve-cells causes an interference with the motor function of the cord, and manifests itself in the paralysis of individual muscles or groups of muscles.

Within certain areas of the spinal cord the anterior horn cells which control individual muscles or groups of muscles may be totally destroyed, and the result would be a total paralysis of the individual muscles or groups of muscles so controlled. In other areas of the cord only certain of the motor cells controlling muscles may be destroyed, and in this case the result would be a partial paralysis of the muscles. In still other areas there may be no actual destruction of motor cells or other structures in the cord, but the presence of inflammation and inflammatory products may cause a temporary interference with the function of the cord, which would show itself as a temporary paralysis in the muscles controlled by such areas.

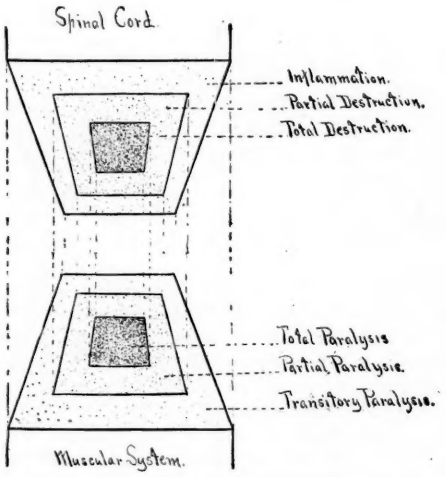
The pathologic changes induced by the profuse myelitis within the cord, and their effects when projected on the muscular system of the body, may be figured schematically as is shown in the drawing.

There are various methods in use in the treatment of the paralysis following acute poliomyelitis. The most important of these are the electrical treatment, the brace

1. Lovett, R. W., and Lucas, W. P.: Infantile Paralysis: a Study of 635 Cases from the Children's Hospital, Boston, with Especial Reference to Treatment, THE JOURNAL A. M. A., Nov. 14, 1908, p. 1677.

treatment, operative treatment, and treatment by massage and muscle-training.

The electrical treatment is probably in more general use than any other form of treatment and the best authorities seem to believe that the galvanic current is of much more value than the faradic. The chief value of the electrical treatment lies in the preservation of the nutrition in the paralyzed muscles until such time as voluntary control returns. It is best employed, therefore, only in the earlier stages of the paralysis while improvement is taking place. After the paralysis becomes stationary, electrical treatment is of little, if any, use. The great mistake, frequently made in electrical treatment, is to expect too much from it. Too often it is the sole method of treatment resorted to, and many cases can be found in which the treatment has been left in the hands of parents or friends of the patient, who simply rub the poles of a cheap faradic battery over the paralyzed limbs a few minutes each day.



Schematic representation showing in the upper portion the different degrees of pathologic change in the spinal cord in poliomyelitis, and in the lower portion the corresponding impairment of muscle function.

Whitman says of brace treatment, "The object of a brace is to prevent the deformity due to weakness and to utilize the muscular power that remains, so that the disabled member may carry out its function." Another important object of a brace is to obviate the overstretching of muscles with consequent weakening and paralysis.

The use of a brace is not without its objections, however. Mild degrees of paralysis may do better without a brace, since its pressure may cause atrophy and thus defeat the ends for which it was designed; also, severe grades of paralysis do better without a brace, since its weight and pressure tend to retard improvement. On the other hand, brace treatment is absolutely necessary at times. A boy who had paralysis of both legs recovered partially, but was neglected and allowed to walk before his strength had sufficiently returned. He is now able to make practically all movements with his legs and feet; he can flex and extend the thighs and can also flex and extend the legs and feet; he can walk but suffers from a marked degree of genu recurvatum. Nothing would do this patient so much good as a pair of light braces fastened to the shoes, extending to the thigh, and provided with a lock-joint at the knee, preventing hyperextension.

Braces should always be strong, but as light and simple as possible. Thus, in cases of foot-drop, sometimes all that is necessary is a stiff-ankled shoe, or at most a brace going up one side of the leg as far as the knee. In paralysis of the leg, the brace should not be extended to go around the waist unless absolutely necessary. Motion should always be allowed at joints, if possible.

The operative treatment of the paralysis following acute poliomyelitis consists in the correction of deformities, arthrodesis, tendon-grafting, anastomosis or transfer and nerve anastomosis.

The correction of deformity, when present, is always advisable and sometimes absolutely necessary. Thus, a patient with poliomyelitis affecting the legs, and who has been neglected until contracture has taken place at the knees, must, first of all, have the contracture relieved as a preliminary to standing on his feet and walking.

The operations of tendon-grafting, anastomosis or transfer, are frequently beneficial, and sometimes offer the best method of improving the condition of the patient.

Ankylosing operations are sometimes of use, especially at the ankle.

As regards nerve anastomosis, the operation has not developed the brilliant results that its first use seemed to promise.

The consideration of massage and muscle-training has been left until the last because it has proved to be the most important method of treatment. Massage and muscle-training are two distinct procedures in treatment, but they go well together, the muscle-training supplementing the massage. In the earlier stages of the paralysis following poliomyelitis the only other therapeutic agent which can compare with massage is electricity, and massage possesses practically all the advantages of electrical treatment and none of its disadvantages. Massage seems to have an equal value with electricity in preserving the nutrition of muscles and in stimulating them to growth, and it is much more agreeable to the patient. This latter fact is especially true with young children who are very apt to be frightened by electrical treatment.

In giving massage to poliomyelitic patients, it should always be borne in mind that the affected muscles are weak and sensitive. Strong massage would have a tendency to weaken the muscles still more and to hasten their atrophy; the massage should therefore be very light in quality. In the treatment of the late stages of paralysis, massage is of great value as a preliminary to muscle-training.

Before discussing muscle-training it will be of advantage to recall to mind the pathologic changes in the cord in poliomyelitis. It will be remembered that there may be, first, areas of total destruction; second, areas of partial destruction; and, third, areas affected only by transitory inflammation. In relation to these pathologic changes, the paralysis resulting from total destruction is absolute, and it is obvious that no form of treatment can influence it in any way. On the other hand, the paralysis resulting from transitory inflammation is not permanent and will clear up as the primary inflammation clears up, under almost any or no form of treatment.

It is in the paralysis which results from areas of partial destruction within the cord, where the motor cells controlling individual muscles or groups of muscles are merely injured, or only in part destroyed, that the benefits of proper treatment are best observed, and without

doubt, muscle-training is the most valuable therapeutic procedure in these cases.

The aim of muscle-training is twofold. In the first place, through voluntary impulses from the brain the effort is made to improve the function of the injured motor cells, and in cases in which there has been a partial destruction of the cells supplying individual muscles, or groups of muscles, the effort is made to train the remaining cells to do the work of the many destroyed. In the second place, the aim of muscle-training is to build up and strengthen the muscles through voluntary contraction. It is a well-known fact that voluntary contractions are much more efficacious in building up and strengthening a muscle than are contractions caused by electricity or any other means.

Muscle-training should not be started so early as massage. It should not be started until all acute symptoms have subsided and the muscles have lost their irritability. In many cases it may be well to wait as long as a month or six weeks before beginning the muscle-training. Otherwise, the earlier muscle-training can be started, the better it will be for the ultimate outcome of the case.

The treatment of muscle-training is best given on an ordinary massage table or any other firm support. The patient should be freed from distracting influences and encouraged to devote all his energies to the work. All clothing should be removed from the limbs so as not to hamper their movements. Too much should not be attempted at first. The instructor should start with the movements that the patient can make and gradually try to instruct the patient in new movements. It is not a difficult matter to bring the muscles whose nervous mechanism has been but little damaged into activity again, but with other muscles this may be very difficult. There are cases in which the muscle-sense seems to be lost; the nervous mechanism is present, and the power of muscular contraction is present, but there seems to be a lack of coordination between the two. In such cases the patient, while undergoing passive movement produced by the instructor, tries to make the movement himself. In this way, the association-paths in the central nervous system are educated and developed. As soon as a movement has become established, resisted exercises are of the greatest value in developing strength.

Twenty minutes to half an hour a day, or, in some cases, every other day, is time enough to devote to a case. Great care should be taken not to overtire the weakened muscles; the instructor should not be in such haste to get results as to strain the muscles or joints, but he should aim to get some improvement each day. Progress will of course be slow at times and successful treatment requires care and perseverance on the part of both instructor and patient.

In young children, the exercises of muscle-training should be given in the form of play.[2] In older children, the stimulus of competition with other children in a class is advantageous. An appeal to pride and ambition is of value in older patients. Each case is a study in itself.

There is always a temptation to get patients into braces and walking too early. The use of heavy braces is apt to mean the end of improvement. Before the patient is allowed to walk, creeping exercises are of great value; following these, or along with them, the patient is allowed to kneel, and, last of all, to assume the complete upright positon. In the end, braces of some sort will usually be needed.

In cases in which muscle-training has not been started early, in addition to the regular training of the nervous mechanism and the developing of the muscles, contractions may have to be overcome; muscles that have become paralyzed by over-stretching brought into activity again, and muscles weakened and atrophied by disuse strengthened.

Muscle-training is useful in all cases of paralysis following poliomyelitis, and at any stage of the paralysis after the acute symptoms have subsided. In the cases in which brace treatment or operative treatment is necessary the brace or operative treatment should always be supplemented by muscle-training. Muscle-training should be given with a view to ultimately giving up the brace.

2 Chestnut Street.

2. Illustrations of this have been given in a previous article; Albany Med. Ann., April, 1910.

TWO CASES OF CESAREAN SECTION WITH UNUSUAL COMPLICATIONS *

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CASE 1.—*History.*—The patient, Mrs. G. B. K., white, was 29 years old. Her mother had had ten children and died in childbirth. Three of these children died, no cause known. Until the patient was 3 or 4 years of age she walked normally. For some reason she then lost the use of her lower limbs and has since used crutches. This condition was attributed to a fall and injury to knee-cap. Other than this she gives no history of disease. She was married in June, 1909. Last menstruation was Dec. 1, 1909.

Examination.—June 13, 1910: Patient is a dwarfed woman, presenting the flaccid useless legs of a child who had gone through an attack of infantile paralysis and regained but slight motion. The abdomen was enlarged to about the size of six months' gestation. The pelvic measurements were as follows: Between the spines, 21 cm.; between the crests, 23 cm.; between the trochanters, 26 cm.; left oblique, 19 cm.; right oblique, 19.5 cm.; external conjugate, 15.5 cm.; and internal conjugate, 7 cm. The type was that of an infantile or undeveloped pelvis, outlet being unusually small.

Progress of Case.—Section at term with removal of the uterus, was advised and accepted. The patient's own physician examined the urine until Aug. 1, 1910, and reported it normal. I saw one specimen in the first week of August and found it free from any pathologic elements. On Aug. 9, 1910, scarcely one week later the patient sent for me to relieve sleeplessness and general edema. The edema of face, hands and feet was very marked. The urine secured a few days later was solid albumin on boiling and contained all kinds of casts. The patient was rushed to the hospital and eliminative treatment started vigorously. The total quantity of urine had been diminished before entering hospital. In spite of treatment it rapidly grew less: August 10, 32 ounces; August 11, 13 ounces. She would be at term Sept. 7, 1910, and it was felt that any delay was especially dangerous and from the nature of the operation before us we wished to avoid eclampsia.

Operation.—Aug. 11, 1910. Cesarean section was done; the baby was a living male child, weighing 4 pounds 6 ounces The uterus was then removed by the plan suggested by Dr. E. P. Davis, which is as follows: A silk ligature is placed on each of the ovarian vessels, then heavy hysterectomy clamps are clamped across the lower uterine segment, the uterus being cut off above. The peritoneum is sewed together and then to the sides of this stump which is left free outside the peritoneal cavity to be dressed. The patient is placed on the operating table before ether is started and ether stopped early. In the present instance the entire operation was finished in twenty-five minutes.

Postoperative History.—After operation the urine remained scant. August 12, 4 ounces; August 13, 11 ounces. On August

* Read before Philadelphia Obstetrical Society, Jan. 5, 1911.

XUM

13, convulsions supervened, and while not frequent they were severe; the patient had six in all, in two days' time. On August 16, the urine secreted amounted to 56 ounces and from that time the woman improved rapidly. The clamps held firmly; the right broad ligament showed some slight trauma from slipping of the clamp in convulsions. The wound healed by sloughing and granulations; the clamps were removed at end of five days. Before this the temperature remained below 99 F., following there was a slight elevation—100 to 100.4 F. from absorption from stump.

The patient left the maternity hospital at the end of a month, having made a good recovery. Both mother and baby are doing well.

CASE 2.—*History.*—The patient, Mrs. R., white, twice married, was 41 years old. Her mother died of cancer of the uterus. The patient had had the usual diseases of childhood. She gives a vague history of an abscess in the pelvis which evacuated through the bowel, during first marriage. She was married ten years to first husband, no pregnancies. To her present husband she had been married about two years, and was pregnant four months. She came under my care for an acute attack of pain in the lower left abdomen; temperature was 100-101 F. The pain was unrelieved by the usual measures and a provisional diagnosis was made of pelvic abscess complicating pregnancy with possible rupture and beginning peritonitis.

Operation.—I opened the abdomen and found that the mass which had been discovered in the pelvis, was a soft fibroid, incarcerated in the pelvis, somewhat twisted and congested; it was intramural in origin with a broad base and was larger than the four-months' pregnant uterus from whose left side in the folds and above the broad ligament it arose. There was no evidence of necrosis of the fibroid. After freeing the tumor from the pelvis and finding that myomectomy was an impossibility I refused to do a hysterectomy and closed the abdomen.

Postoperative History.—The pain and temperature subsided immediately; the woman made a rapid recovery and left the hospital at end of ten days practically well except for a slight ether nephritis. She was allowed to go to term, though suffering some unusual discomfort and at times pain in the left side.

Cesarean Section.—On the advice of her physician and because her mother had died of cancer of the uterus, she requested that both baby and fibroid be removed at one sitting. She was taken to Jefferson Hospital (Maternity) and on Aug. 16, 1910, an abdominal hysterectomy was performed, and a well-formed male child delivered. The operation proved somewhat difficult because of the fibroid in the left broad ligament extending down to the vessels of the left side; apparently there was an old adhesion or cicatrix from a previous left-sided pus tube also.

Postoperative History.—The patient was somewhat shocked but reacted well and presented a normal postoperative chart for one week. Then the temperature rose to 101 F. with severe pain in the left side. This pain was relieved only by evacuating through the vault of the vagina a clot of blood in and posterior to the broad ligament where the fibroid and adhesion had existed.

The patient nursed her baby and made a good recovery. The child was small but not deformed—5 pounds 4 ounces.

This patient reported to me December 3. She is gaining in weight, nursing the baby and has no difficulty in the pelvis, but there are some symptoms of the menopause.

These two cases illustrate well the success attained in some complicated cases by the use of abdominal delivery.

There is no form of delivery so rapid as that represented by the first operation, and given a woman in whom future pregnancies are neither desired nor advised we can often save patients in cases which would otherwise be practically hopeless.

In the second case, the fact is illustrated that large single fibroids or even multiple fibroids are no bar to the development of a viable child.

400 Chestnut Street

Therapeutics

PRURITUS: ITCHING

To the clinician, pruritus, or itching, represents one of the most puzzling problems in medicine. There are few subjects in regard to which there are so few things definitely known as this one. The clinical manifestations are connected with the terminations of the sensory nerves in the epidermis. Concerning this point there is practical uniformity of sentiment among all observers. As to what affects these nerve endings, so as to give rise to itching, there is a great diversity of opinion. Many believe that it is associated with hyperemia and inflammation of the skin, this condition sometimes resulting in atrophy of the skin, with a continuance of the itching. There are many reasons for believing that these pathologic conditions are not the efficient cause of the itching in many cases.

For example, a common form of itching is pruritus ani, observed in children, caused by the presence of the *Oxyuris vermicularis*, or pin-worm. When these worms are present there may be at times intense itching without any local lesion, or any local disturbance of the nutrition of the skin, evident on ocular inspection. Presence of the worms on the skin in this region gives rise to the itching, but this must be due to something more than the simple presence of small foreign bodies, for no one has demonstrated that this unpleasant symptom may be caused by the presence in the same situation of small pieces of fine thread, or other similar bodies which do not possess active life at the time.

Another common cause of itching, especially in children, is the presence of pediculi, or lice. It seems to be at least open to question whether the itching produced by these parasites is due alone to their presence on the skin in a quiescent state, or even to their active movements on the skin.

Still another instance of intense itching associated with a parasite is that observed in scabies. The startling rapidity with which the symptom of itching subsides under the sulphur treatment of this condition would indicate that the itching is due to something besides the presence of the foreign body, for presumably the application of the sulphur destroys the itch mite, leaving its body in the skin, but as soon as its life is destroyed the itching ceases.

One of the most common forms of itching is that due to the bite of the mosquito. This is certainly out of all proportion to the local congestion and inflammation, and undoubtedly is due to the action of some poison injected by the animal beneath the skin.

Turning now from these obvious external causes of itching and considering the itching caused by jaundice, it will be generally accepted that the itching associated with the common form of jaundice dependent on obstruction to the flow of the bile into the intestine, is due to the irritation of the ends of the sensory nerves by some substance contained in the bile which is absorbed into the blood, or at least by the presence of some product resulting from decomposition of the ordinary constituents of the bile.

Urticaria is another form of skin disturbance associated with intense itching and is frequently due to the ingestion of some unusual article of food. It would seem probable that here the itching is due to some poison carried to the nerve endings in the blood, as is the case in jaundice.

It will be noted that many diseases accompanied by congestion and inflammation of the skin cause itching, but it is a curious fact that the disease, which is constantly accompanied by cutaneous lesions, has as a striking characteristic that its skin lesions are usually unaccompanied by itching. This disease, of course, is syphilis, which we might expect for a double reason would be generally accompanied by itching, but it might be supposed that the poison which unquestionably circulates in the blood and causes the lesions of the skin would give rise to itching, and it would also be supposed that the congestion and inflammatory conditions produced by it would be accompanied by itching, but such is not the fact.

With certain general diseases pruritus is a common symptom, especially diabetes and that common condition associated with abnormal metabolism, known as lithemia, and which is believed by many to be associated with gout. These diseases are all characterized by the presence in the blood of chemical bodies, which ordinarily do not belong there.

It is hardly worth while here to undertake an enumeration of the causes which are commonly assigned for pruritus. They will become apparent incidentally in connection with what will be said in regard to the general treatment of the condition. It has been already stated that the condition is associated with the terminations of the sensory nerves in the epidermis. It is commonly taught by writers that pruritus may be of central origin. It is asserted to be of not infrequent occurrence in hypochondriasis and hysteria. Still another form is described as being of psychic origin, and is seen in insane persons who have hallucinations of the presence of parasites, such as pediculi, on the skin; hallucinations which it is often difficult to remove, and which are sometimes removed only after repeated applications of antipruritic remedies.

In undertaking the treatment of a case of pruritus it is necessary to investigate every organ of the body so as to restore to its normal action, if possible, any organ which may be acting abnormally or which may be under abnormal conditions. First, the condition of the digestive organs must be carefully investigated, and the diet must be carefully regulated. There are two types of people in whom pruritus is seen: one is the stout, robust, plethoric person who is continually over-eating, and the other is the thin, hungry person who is continually starving himself. In the case of the former the diet should be cut down. The protein substances should be greatly reduced, and the starches and sugars should be considerably limited. If it is found that certain articles of food are not completely digested but give rise to fermentation, such articles should be reduced to an amount that can be taken care of by the digestive organs. In the latter class, the thin patients, fatty articles of food should be advised, and an adequate amount of protein should be given to afford adequate nourishment. In both classes, fruits, especially oranges and grapes, will be found exceedingly useful.

If the bowels are constipated, measures should be taken to make them act regularly and abundantly. Small doses of calomel, for a week or two, are sometimes useful for this purpose. For instance, the following prescription may be used:

℞	Gm.		
Hydrargyri chloridi mitis.....	20		gr.iii
Magnesiæ	5	or	gr.lxxv
Sodii bicarbonatis.....	10		3iiss

M. et fac chartulas 20.
Sig: A powder three times a day, after meals.

℞	Gm.		
Hydrargyri chloridi mitis.....	10	or	gr.iss
Sacchari	4		3i

M. et fac chartulas 20.
Sig.: Take one after each meal.

If this amount of calomel is not sufficient to cause free movements of the bowels, a saline may be given in addition to or in place of it. For instance, 1 or 2 drams of the sulphate of magnesium or of the phosphate of sodium may be given in half a glassful of water in the morning, before breakfast.

Pruritus is frequently associated with deficient elimination, and especially of the kidneys. If the condition of the urine is found to indicate such defective elimination, the internal use of alkalies will generally be found of advantage. In the case of the plethoric individual, with a strongly acid urine of high specific gravity, the following prescription may be used:

℞	Gm. or c.c.		
Potassii citratis	40		3ix
Aquæ menthæ piperitæ.....	200	or	fl.℥vi

M. et Sig.: Two teaspoonfuls, in water, three times a day, after meals.

There is no special particular reason for the "A B C" mixture which is used to alkalize the urine either in gonorrhea or any other condition. The acetate, bicarbonate, and citrate of potassium act similarly. It is only a question of taste and the amount used. The citrate of potassium is the most pleasant; the bicarbonate the most disagreeable. The acetate may alkalize the urine in a little smaller dose than does the citrate. The above prescription presents an alkali in a pleasant form and perfectly bland to the stomach. It should be taken with plenty of water. If the above dose, three times a day, does not alkalize the urine (if that is the object desired), it may be administered four times a day.

Although it is admitted that pruritus is associated with the sensory nerves, and it is claimed that in some instances it is due to a disturbance of the central nervous system, no drug acting on the brain, spinal cord or nerve trunks is very effective in pruritus, possibly with a single exception of bromids, which really act by dulling the peripheral endings of the nerves. The treatment of pruritus with bromids is generally inadvisable, as they act by causing nerve debility and later muscle debility and loss of nutrition. Temporarily such treatment is often good treatment.

Generally, in order to stop the itching, it is necessary to apply some drug to the skin which will lessen the sensibility of the ends of the nerves which are in trouble. Several drugs are used for this purpose. The most useful are phenol (carbolic acid), menthol, camphor, chloral, thymol, oil of cade, alcohol and alkalies. The following are a few prescriptions which are suggestive. Various modifications of any one of them may act as satisfactorily.

℞	c.c.		
Phenolis	5		
Liquoris potassæ	5	or	ää fl.3iss
Petrolati liquidi.....	ad 50		ad fl.℥ii

M. et Sig.: Use externally as directed.
Shake.

Or,

℞	c.c.		
Phenolis	3		fl.3i
Glycerini	10	or	fl.3iii
Liquor calcis	25		fl.℥i
Aquæ .....ad	100		ad fl.℥iv

M. et Sig.: Sponge over irritated surfaces.
Shake.

Or,

℞	c.c.		
Phenolis	25		fl.℥vi
Liquoris calcis	125	or	fl.℥iv
Olei amygdalæ dulcis	ad 250		ad fl.℥viii

M. et Sig.: Use externally as directed.

Or,

℞	Gm. or c.c.		
Mentholis	1		gr.vii
Sodii bicarbonatis	15	or	ʒss
Glycerini	25		fl.ʒvi
Aquæ	ad 250		ad fl.℥viii

M. et Sig.: Use externally as directed.

Or,

℞	Gm. or c.c.		
Mentholis	50		gr.x
Camphoræ	1	or	gr.xviii
Olei amygdalæ dulcis	2		♏xxxv
Adipis lanæ hydrosi	25		℥i

M. et Sig.: Use externally.

Or,

℞	Gm. or c.c.		
Mentholis	30		gr.v
Phenylis salicylatis	2	or	ʒss
Olei amygdalæ dulcis	2		fl.ʒss
Adipis lanæ hydrosi	20		ʒv

M. et Sig.: Use externally.

Or,

℞	Gm.		
Camphoræ	15	or	āā℥ss
Chlorali hydrati	15		

M. et Sig.: Paint over affected part.

Or,

℞	Gm. or c.c.		
Mentholis	1		gr.xv
Thymolis	2	or	gr.xxv
Aquæ	100		fl.℥iii

M. et Sig.: Use externally.

Or,

℞	Gm. or c.c.		
Camphoræ	5		gr.lxxv
Zinci oxidi	15	or	ʒss
Cretæ preparatæ	30		ʒi

M. et fac chartulam 1.
Sig.: Use as a dusting powder.

Or,

℞	Gm.		
Camphoræ	5		gr.lxxv
Zinci oxidi	15	or	ʒss
Amyli	30		ʒi

M. et fac chartulam 1.
Sig.: Use as a dusting powder.

Or,

℞	Gm. or c.c.		
Olei cadini	5		fl.ʒiss
Petrolati	50	or	ʒii

M. et Sig.: Use externally.

Or,

℞	Gm. or c.c.		
Olei cadini	5		fl.ʒiss
Adipis	25	or	
Adipis lanæ hydrosi	25		āā℥i

M. et Sig.: Use externally.

Various other forms of tar may be used if desired.

℞	Gm. or c.c.		
Tincturæ iodi	5		āāfl.ʒiss
Tincturæ opii	5	or	
Glycerini	ad 25		ad fl.ʒi

M. et Sig.: Paint on externally.

The above prescription may be used when only a small part itches, as a chilblain, or something of that description.

Various alcohol and menthol sprays and washes or simple saline sprays are often satisfactory. The following is a menthol spray:

℞	Gm. or c.c.		
Mentholis	1		gr.xv
Alcoholis	100	or	fl.℥iii
Aquæ	ad 200		fl.℥vi

M. et Sig.: Use externally with an atomizer.

The question of the use of alcohol and tobacco is usually raised in connection with the treatment of pruritus, and it is generally advised that both should be forbidden. Certainly, the vast proportion of people who use tobacco and alcohol are not affected with pruritus. This of course does not indicate that they may not be detrimental to sufferers from pruritus, and possibly in some instances their use aggravates the condition. In such cases their discontinuance should certainly be advised; but in most cases their use or disuse will probably prove to be a matter of indifference.

PRURITUS ANI

While it is universally insisted that the term "pruritus" should be strictly limited to such itching affections of the skin as are not accompanied by any recognizable lesion, the term "pruritus ani," on the other hand, is used much more broadly, so that under it are commonly included such affections about the anus as are accompanied by itching but do not show any manifest lesion, and also those conditions in which there are decided pathologic changes in the skin and in which intense itching is the most important symptom. Pruritus ani commands the attention and interest of the general practitioner, the proctologist, the dermatologist, and, at times, the neurologist.

It is a very simple matter to declare that every case of pruritus ani is dependent on some distinct cause, and that in order to treat the disease successfully, this cause must be accurately determined; but to find out and determine, in each individual case, just what the cause is, and whether or not there are several etiologic factors, is another matter, and often extremely difficult.

The physician does not do his full duty to his patient, if he prescribes for itching about the anus without making a careful examination of that region and interrogating the patient in regard to his habits and the manner in which the functions of the different organs are performed. It is, ordinarily, a simple matter to determine whether the itching is due to the presence of the *Oxyuris vermicularis* (pin-worm) or to the presence of pediculi. The occasional occurrence of these parasites in this region and their causative relation to the production of itching should not be overlooked. On local examination, it is frequently possible to detect the presence of a fissure of the anus, or an ulcer in that situation, or within the sphincter ani muscle. In other cases there may be found a fistula, hemorrhoids, or polypi; and further exploration of the rectum may show a catarrhal condition of the mucous membrane, or a disease of the crypts.

At the beginning of the condition it may be impossible to find any lesion, but, as the case progresses unrelieved, the energetic scratching in order to relieve the itching usually produces a thickening of the skin. Inflammation of the skin occurs, causing an increase of the connective tissue which presses on the nerve endings. This may be followed by an atrophic condition of the superficial layer of the skin. The thickened integument may have a whitish, sodden appearance, and may lie in folds, on or between which there may be fissures caused by the scratching.

Many cases are accompanied by a condition of moisture of the skin about the anus. Some believe that this moisture is the cause of the itching, but it is more probable that in most cases it is an accompaniment of the condition that gives rise to the itching, or may accompany that lesion of the skin which is produced or aggravated by scratching. This moisture is probably

due to a hypersecretion of the sebaceous glands, but it is possible that a part of it comes also from the sweat glands.

In some cases it will be found that a disturbance remote from the local manifestation gives rise to the itching. Congestion of the mucous membrane of the intestine accompanied by a catarrhal condition; congestion of the liver may be accompanied by a congestion about the anus which gives rise to intolerable itching. Pressure on the veins, as from the enlarged uterus during pregnancy, or from pelvic or abdominal tumors, may produce similar effects.

Some general diseases are occasionally accompanied by pruritus ani. The most important of these is diabetes, but the condition may be present in chronic nephritis, in gout, and in rheumatism. It is also a not infrequent accompaniment of the degenerative changes which accompany old age. Some cases show a decided neurotic element. Sometimes business or professional men who are actively engaged in following their vocation and who are subject to unusual nervous and mental strain are the subjects of this disorder. These various conditions, which do not cover all the causes which have been enumerated as etiologic factors of this itching, indicate that there is a wide scope for the use of judgment in selecting a line of treatment appropriate for each individual case. When this condition is an incident of senility, or of such general diseases as diabetes or nephritis, the treatment is generally palliative, by means of local applications. Of course, any improvement in the diabetes, or in the nephritis, will cause improvement in the local trouble.

The dietetic management of the case and the employment of such remedies as promote excretion of the products of metabolism are clearly indicated. In a large number of patients it will be found that a rearrangement of the diet is of great importance. Many of these patients eat too much, and their diet should be restricted so that they eat less and limit the amount of food to the needs of the system. In some patients who present symptoms which are commonly called lithemic, a limitation of the amount of protein ingested, and more especially a reduction of the meat to once a day, is advisable. In other patients, it will be found that there is a tendency to use an excessive amount of sugars and starches, and in such individuals these elements of the food should be restricted.

In many cases there is constipation, accompanied, sometimes, by intestinal fermentation. If this constipation cannot be corrected by a regulation of the diet, some laxative may be necessary. Aloes sometimes seems to do harm by increasing the irritability and congestion about the rectum. Usually cascara sagrada or a saline cathartic is preferable. Sometimes it is well to give a moderate dose of cascara sagrada at night and follow this by a saline laxative in the morning, regulating the dose so that the patient may have one soft movement after breakfast.

If the urine is highly colored, of high specific gravity, or is strongly acid, the administration of alkalies such as potassium citrate is useful.

Frequently an operation, it may be slight or it may be of considerable gravity, is indicated. If there are tags of hypertrophied skin, they should be snipped off. If there are hemorrhoids, they should be removed. If there is a fissure or ulcer, it must be treated by local applications of solutions of nitrate of silver daily, if the solutions are weak (from 1 to 3 per cent.); once in four or five days, if strong (10 per cent.). If there is a fistula, it should be incised or excised. If there is catarrh of the rectum, it may be treated by alkaline enemata.

In a few cases, which persistently resist milder forms of treatment, it has been proposed to excise the ring of affected skin surrounding the anus. Some favorable results have been reported from this treatment, but it is generally considered as more severe than is necessary. Other surgeons have proposed to incise strips of skin, leaving other strips *in situ*, but passing the knife under these so as entirely to separate the nerves through which the sensation of itching is transmitted.

A considerable number of these patients have been treated with very gratifying results with the Roentgen ray. These applications may be given at first with two exposures a week, until some dermatitis is produced, and then once a week. The *x*-ray causes a diminution of the excessive moisture which is sometimes present, and a decrease in the size of the sebaceous follicles, these seeming to be affected by the ray more than the sweat glands. Others have used the high-frequency current with asserted advantage.

Various local remedies are used with more or less success. A group of suggestive prescriptions will be found above. Many physicians advise the use of cocain, but this should never be given to the patient for personal use; it should only be used by the physician to relieve the pain of local applications, such as nitrate of silver, or for the performance of minor operations.

Before thinking of applying any remedy, a most scrupulous cleanliness should be exercised. After every movement of the bowels, the anal region should be bathed with hot water, which may be used without medication, or there may be dissolved in it simple salt, borax, or bicarbonate of sodium. The use of newspaper or other coarse paper should be strictly prohibited; indeed, some writers have expressed the opinion that the printers' ink on the newspapers is a frequent cause of this condition.

At such times as the itching comes on intensely, especially in the evening or after retiring, local applications of either ice-cold or very hot water often afford considerable relief. The hot water may be medicated by the addition of boric acid to the point of saturation, or with borax. Phenol (carbolic acid) may be applied in solution of from 2 to 3 per cent. strength, and it may be used in much stronger solution once or twice a week.

A very useful simple application, especially valuable in pruritus vulvæ, is yeast. It may be applied as brewers' yeast; or, as satisfactory, is a solution of an ordinary tin-foil-covered yeast cake in a half pint or a pint of water. Daily applications of this yeast solution, especially at night, will sometimes cure when all else has failed.

PRURITUS VULVÆ

All of the general remarks applicable to pruritus ani and perineal pruritus are equally applicable to pruritus vulvæ. Irritating vaginal discharges should be ameliorated: the possibility of the presence of insects should be considered, and if they are present they should be removed.

Diabetes is a frequent cause of the trouble. Irritating, abnormal urine is another frequent cause; when this is corrected, or the vulva protected by bland ointments, the pruritus ceases. In one-sided, unaccountable and unexplainable pruritus, the Roentgen ray has effected a cure.

XUM

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RECENT STUDIES OF LEPROSY

From time immemorial leprosy has been held in almost superstitious horror by the laity—thanks probably to the Scriptural attitude toward it; and to physicians even now it presents problems such as are encountered in few, if any, other diseases. In light of recent contributions toward its study, however, many of these problems appear to be in a fair way toward solution. It is almost two years since Clegg[1] first announced the successful prolonged cultivation of the organism of leprosy on artificial media, and Duval[2] since then has devised methods that make this proceding one of comparative simplicity. Clegg's method consisted in first growing the organism along with amebas and symbiotic bacteria; after several transplantations under such conditions, the bacillus became altered sufficiently to permit growth in pure culture. Duval, however, has shown that the essential element necessary for its artificial growth is the presence in the medium of tryptophan and other free amido-acids—factors that were furnished in Clegg's experiments presumably by the action of the bacteria on dead amebas. Like Clegg, Duval found that the bacillus grew more readily after being cultivated artificially for some time. The organism was found by both investigators to be extremely hardy; it resisted a temperature of 70 C. for half an hour, and Duval and Gurd[3] were able to cultivate it from tissues kept in salt solution at room temperature for over eight months. Nor did overgrowth with saprophytic or pyogenic organisms appear to affect its vitality in the least.

Success in animal inoculation has advanced almost equally with the progress in artificial cultivation of the organism. Clegg was able to produce, from inoculation of pure cultures, localized lesions in the guinea-pig closely resembling those in man; and Sugai[4] showed that the Japanese dancing mouse was sufficiently susceptible to undergo systemic infection from local inoculation. Neither of these animals, however, showed a clinical picture like that in man. But Duval[5] has recently, by successive injections of a pure culture of the leprosy bacillus, succeeded in producing in the monkey (*Macacus rhesus*) a type of disease very similar to the human form, and in reobtaining the acid-fast organism from the remote lesions.

Of considerable interest as bearing on the methods of transmission, is the fact that Duval and Gurd were able to cultivate the organism from nasal secretions in two of five cases. They also succeeded in inoculating mice by rubbing cultures of the bacillus into their nares after gentle scarification. Taken in connection with the high resisting power of the organism, these facts would appear to speak strongly in favor of the usually adopted, though much disputed, measure of segregation.

The same investigators have taken up the serum reactions of leprosy. Amboceptor, specific apparently for the lipoid constituents of the organism, they found present in considerable amounts. Agglutinins occurred in small quantities; and the serum of leprous patients was found by them not to differ from that of normal individuals in content of complement. Their results as to specific amboceptor are confirmed by the work of Biehler and Eliasberg,[6] but unlike them, Eliasberg claims to have demonstrated the absence of free complement in the serum of lepers.

It will be seen that as a result of the foregoing work, Koch's postulates have now been fully carried out for leprosy. Considerable light has been thrown on the much argued question of methods of transmission. And with means at our disposal both for obtaining *Bacillus lepræ* in pure culture, and for successfully inoculating experimental animals, further progress should be rapid. Profiting, however, by our many disappointments with tuberculosis—a disease resembling leprosy in so many respects—it will be well to guard ourselves against expecting too much in the way of effective therapy of the disease as a result of recent experimental work.

1. Philippine Jour. Sci., 1909, iv, 403.
2. Jour. Exp. Med., 1910, xii, 649; 1911, xiii, 365.
3. Arch. Int. Med., 1911, vii, 230.
4. Lepra, 1909, viii, 203.
5. Jour. Exp. Med., 1911, xiii, 374.

WHITE PHOSPHORUS

From time to time THE JOURNAL has directed attention to the efforts which have been made to obtain Federal legislation prohibiting the use of white phosphorus in the match industry in this country. The stand taken by THE JOURNAL is that such legislation is a much-needed step in the direction of public control of the dangerous trades, and that for this reason the medical profession should endorse it. In an article in the present issue, Dr. Robert H. Ivy criticizes this view and presents an argument for the continued use of white phosphorus in the match industry on the ground that "barring absolute carelessness on the part of employees" white phosphorus can be used without danger. He proceeds to give his experience as examining surgeon for one of the match factories, and concludes that the sub-

6. Deutsch. med. Wchnschr., 1911, xxxvii, 302-304.

stitution of the safe sesquisulphid for the poisonous white phosphorus is unnecessary, provided proper precautions are observed.

Dr. Ivy says that he requires from the employees of a match factory no unusual precautions, only that they shall not be guilty of a carelessness comparable to a miner's playing with dynamite. This seems to be an exaggerated description of such careless acts as picking the teeth while at work, chewing gum or eating candy while at work, drinking water from a glass standing on the work table, yet all these are recognized as dangerous actions for a match worker.

Dr. Ivy describes conditions in the factory with which he is connected and in which regular monthly dental examinations have been made for a period of two and a half years. No employee who entered the factory during that time has developed necrosis of the jaw. Some of these employees have not been at work more than six months; ninety-six have been there less than two and a half years. Now it is interesting in this connection to consider the length of exposure to phosphorus fumes given in the histories of cases of phosphorus necrosis. The report of John B. Andrews,[1] quoted by Dr. Ivy, gives thirteen histories in which this detail is noted. Ten individuals had worked with phosphorus for periods ranging from three and a half to forty years before they developed necrosis, only three for periods of less than three years. Five more gave the length of time as "several years," which would surely be more than two years. It would, therefore, seem that Dr. Ivy's negative conclusions can hardly be regarded as founded on sufficient data.

It is always difficult for one country to benefit by the experience of another, yet it would really be a great economy of time and effort could we consent to be taught by the past mistakes of our European cousins. We are now in the same position that most of the great European nations occupied ten or fifteen years ago. They wasted many years and permitted much human suffering in their effort to regulate the use of white phosphorus instead of abolishing it, but one by one they were obliged to confess their efforts a failure and to become converts to the prohibition policy. In 1906, an international agreement to prohibit the manufacture, importation or sale of white phosphorus matches was signed by France, Germany, Italy, Switzerland, Holland and Denmark. Great Britain held off, and that country's experience is illuminating for us. In 1898 the British Parliament appointed a committee of three experts to inquire into the question, a chemist, a dentist and a physician. The physician (Thomas Oliver) stated that nothing short of the total prohibition of white phosphorus would make match factories safe, but the dentist gave it as his opinion that proper regulation would meet the danger. Parliament at first accepted the more optimistic view, strengthened the regulations, and provided for examining dentists and doctors; but cases of necrosis continued to be reported, and in 1908 a law was passed prohibiting the use of white phosphorus. In that same year Great Britain signed the international agreement. It would seem then, that regulation of the industry has had a fair trial, and that it is hardly worth while for us to repeat the experiment, for the regulations which proved a failure in Europe were far more stringent that any we should be likely to enact in the United States. It is scarcely probable that our state legislatures would require factories to be built according to government plans, with compulsory medical inspection, notices concerning the dangers of the work which the employer must read aloud to his employees at stated intervals, limitation of the percentage of phosphorus in the paste, etc.

Lest anyone should believe that the situation in the United States differs from that in foreign countries, and that the match industry here is not productive of phosphorus necrosis, we quote from the Bureau of Labor investigation referred to above. There are about 3,500 employees in fifteen of the seventeen match factories in the United States. Of 3,383 whose occupation was specified 65 per cent. are exposed to phosphorus fumes; 95 per cent. of the 1,395 women are so exposed. An intensive study of three factories was made, and eighty-two cases of necrosis were discovered. Andrews describes a factory which is a model in equipment and in care of employees: "Here, if anywhere, careful regulation over many years and favorable conditions should have resulted in the complete disappearance of phosphorus necrosis. Yet forty cases of phosphorus necrosis" (fifteen involving loss of the jaw by operation) "were easily secured."

Were there no way of making matches except through the use of this poison we might resign ourselves to such conditions, but in view of the fact that the industry may be made entirely safe, it seems that as medical men we have no choice but to favor the legislation which is framed to accomplish this result.

1. A close examination of the histories given by Andrews brings to light several significant facts. Three toothless individuals, with no apparent channel for infection present (the roots had also been removed), developed phosphorus necrosis. A man who had worked developed necrosis. Two individuals are mentioned as being unusually developed it. Two individuals are mentioned as being unusually intelligent and as having taken all possible precautions to protect themselves, yet failing victims to a severe form of the poisoning. One case of fragilitas ossium was discovered. Oliver speaks of having found this condition among the Belgian match workers at Grammont.

PUBLIC HEALTH BULLETINS

The fact is not so well known by physicians as it should be that the national government, through the Public Health and Marine-Hospital Service, is issuing for gratuitous distribution a valuable series of bulletins on matters relating to public health. The series now numbers forty-four, and from the list of those already published it can be seen that at least the more recent ones deal with live and important phases of medicine as it relates to public health. These bulletins have been written by men who have had especial facilities for

studying the various subjects of which they treat, and care has been taken that they should not be written from the viewpoint of the specialist or laboratory worker. They are intended for the use of the general practitioner, and give him recent and accurate information not easily obtainable elsewhere on many important subjects.

The latest of these bulletins deals with the subject of acute anterior poliomyelitis.[1] This bulletin furnishes the general practitioner the latest information in regard to this disease, of which, according to the author, there have been during the last few years over 5,000 cases in the United States alone. Such a publication is of peculiar timeliness. The average text-book account of this disease (some text-books still confine themselves to the ordinary spinal type) is inadequate for any proper comprehension of this serious malady, and the recent literature is not accessible to the average practitioner. An accurate and comprehensive discussion of the subject, such as is here offered in comparatively brief compass, should appeal to every physician.

Another bulletin, treating of disinfectants, their use and application in the prevention of communicable diseases,[2] has also recently appeared and will be of great value to health officers, particularly to those in the smaller communities. This bulletin first discusses the gaseous disinfectants and disinfectant solutions in detail and from a practical standpoint, as well as the various methods for the application of gaseous disinfectants, particular attention being paid to the formalin-permanganate method for the generation of formaldehyd gas. Then insecticides are taken up with the methods of their use. This publication should be in the hands of every health officer in the United States.

Other publications of the series are on the sanitary privy, leprosy, the rat and its relation to the public health, hookworm, tuberculosis, yellow fever, bubonic plague, rabies, pellagra and trachoma. All are obtainable from the Superintendent of Public Documents.

In this connection it may be added that the Public Health Reports, the weekly journal published by the Public Health and Marine-Hospital Service, and the value of which to quarantine and health officers has long been appreciated, is now very frequently publishing short articles of the greatest interest to all health officials. These articles, while primarily intended for health officials, could be read with profit by every practitioner. The most recent of these[3] is a report on the investigation of a typhoid epidemic in a western city, and clearly outlines the methods of procedure in the treatment of such a situation with the many difficulties and complexities involved.

1. Acute Anterior Poliomyelitis (Infantile Paralysis), by Wade H. Frost. Public Health Bulletin 44, U. S. Public Health and Marine-Hospital Service, Washington, February, 1911.

2. Disinfectants, Their Use and Application in the Prevention of Communicable Diseases, by Thomas B. McClintic. Public Health Bulletin 42, U. S. Public Health and Marine-Hospital Service, Washington, December, 1910.

3. Public Health Reports, Jan. 27, 1911, vol. xxvi.

STATE RESPONSIBILITY IN MEDICAL EDUCATION

Those who have made a critical study of the present conditions surrounding medical education and licensure recognize three principal facts. First, modern medicine requires a broader education than did the medicine of twenty years ago; second, the medical profession is already seriously overcrowded; and third, there are still a large number of medical schools which are incapable of furnishing a modern medical course and which are turning into the profession large numbers of poorly trained graduates. A diminution both in the number of physicians and in the number of medical schools, therefore, would scarcely be a matter for regret; indeed, it would be beneficial, especially if such diminution led to the securing of better-trained physicians.

To furnish a modern medical training it is necessary that the medical school should, first of all, exact a higher entrance requirement in order to secure students who can master the modern medical course. The medical school should also possess better buildings, better-equipped laboratories, better hospital facilities and more full-time, thoroughly trained and expert teachers, than were required twenty years ago. These additional demands of the medical school require the expenditure of more money than can possibly be obtained from students' fees. The medical school of to-day, therefore, must be supported either by the state or by private endowment.

Already twenty-two states, to a greater or less extent, are supporting medical schools. Of these twenty-two, seventeen have thus far adopted as their minimum of preliminary education, in addition to a four-year high-school course, one or two years of collegiate work, including thorough courses in physics, chemistry and biology. These colleges, therefore, have adopted a reasonable and moderate standard which places them on a par with medical schools abroad and have not gone so far as to adopt the extreme requirement of a college degree for admission.

The strengthening of state university medical schools and the adoption of higher requirements will doubtless have the effect of forcing a number of low-grade medical colleges to increase their equipment so as to provide a modern medical training and to adopt higher standards of admission, or to go out of existence.

Considering the needs outlined above, the legislation which is being sought in several states is of particular concern to the interests of medical education. Bills have been presented in some states to make increased appropriations for medical education, to be expended in buildings, equipment, etc. This legislation is clearly in the interests of public health. In several other states the legislation asked for relates to higher standards of medical education. In one state, however, an effort is being made to lower the standard, but such retrogressive legislation is not likely to pass, since the people of that

state fully realize the importance of the standards now held by both its university and its board of medical examiners.

Opposition to any advanced legislation is always a thing to be expected. The opposition to the above measures, however, seems to emanate chiefly from the less progressive medical schools which either fear the competition of the state institutions, or desire to continue their lower standards of admission. The cry is raised that this legislation tends to "restrict medical freedom," but that cry is a false alarm. "Medical freedom" to turn out ill-trained doctors—freedom to disregard scientific rules of sanitation—freedom to impose ignorant medical advisers on the helpless and the sick of any community—surely needs restriction. The time has certainly arrived when the state should assume its full responsibility, not only in providing for the training of well-qualified medical men, but also in safeguarding the public against bungling incompetence and fraud.

Current Comment

KEY TO THE AUTOMOBILE NAMES

This is the fifth annual Automobile Number. As usual, the names of the cars, tires and accessories, referred to by numbers, are given in a folder, a copy of which will be sent on receipt of a self-addressed stamped envelope. Some who have written on automobiles in previous issues report that many physicians wrote to them for further information—and forgot to send postage for reply. This is intended simply as a hint.

VACCINATION IN THE PHILIPPINES

The opposition ignorantly raised against vaccination has received another conclusive answer in a report[1] on small-pox and vaccination in the Philippine Islands by Passed Assistant Surgeon Victor G. Heiser, Director of Health in the Philippines, and Assistant Surgeon Robert Oleson of the U. S. P. H. and M.-H. Service. They say that at probably no time in the world's history has the efficiency of vaccination as a preventive for small-pox been so conclusively and effectively demonstrated as in the Philippine Islands since American occupation. The evidence of its value is incontestable. During Spanish times it was necessary each year, during the dry season, to erect in Manila a large temporary hospital to which the many hundred victims of small-pox could be taken. The great majority of them died. During the past five years not one person has died in Manila from small-pox who had been successfully vaccinated during the five previous years; nor has anyone died of small-pox in Manila since June, 1909. In 1907, systematic vaccination was completed in the six provinces near Manila. These provinces have a population of, approximately, one million, and from time immemorial until a few years ago the annual mortality from small-pox was at least six thousand. Since 1907, not one person has died of small-pox who had been successfully vaccinated, and only a few cases have occurred. In these few cases not a death occurred among vaccinated persons. This has been the experience in other provinces throughout the islands since the American occupation, and only in instances in which vaccination has been relaxed have cases of small-pox occurred, and then almost entirely among unvaccinated infants or among immigrants. This report contains many other convincing figures, but to the intolerant individuals who oppose vaccination, experience is a liar, and figures are intended only to conceal the truth.

1 Public Health Reports, March 10, 1911, p. 277.

GOVERNOR OSBORN FOR HONEST ADVERTISING

There is a public as well as a personal conscience; that there is an evolution of public conscience has been strikingly demonstrated recently in many ways. Probably in no direction is the public conscience developing more rapidly than in that of insisting on honesty in methods of publicity. The label clauses in our pure food laws, both state and national, are an illustration. The results secured by such legislation have raised the question in many minds: Why should not honesty be insisted on in all advertising, quite as much as in the advertising of food products? Evidently, one of our state executives believes that all advertising should be truthful and that the state should protect the purchaser and reader of newspapers and magazines, and he is not afraid to say so. In his inaugural message to the state legislature, Governor Charles S. Osborn of Michigan said:

> The action of the federal authorities in excluding offending newspapers from the mails protects only a part of the readers of fraudulent advertisements. There should be state legislation holding publishers accountable for printing palpably dishonest announcements of investment swindlers and of all other unscrupulous advertisers who seek to betray the reader's confidence in the integrity of the press.

Many far-sighted men in the newspaper business have recognized the growing sentiment in favor of honest advertising and have realized that the integrity of the press is its most valuable asset. Those publishers who have not yet grasped this fact must soon realize its importance or have their attention called to it by the enactment and enforcement of laws in accordance with growing public sentiment.

MINISTERS DEMAND MORE RIGID LAWS

Much has been said of late regarding the desirability of greater public interest in the state regulation of the practice of medicine. It has long been recognized that medical practice acts, being primarily for the protection of the public, should have a greater measure of public support. The recent action of the Iola (Kansas) Ministerial Association should be a source of gratification to all who are desirous of seeing the practice of medicine restricted by the state to those actually fitted by training to assume such responsibility. At a recent meeting of

the ministers of Iola, a resolution was adopted and ordered sent to all the ministerial associations of the state, enlisting their aid in securing the passage of a law to restrict the practice of healing to those who could demonstrate their fitness and qualifications to treat the sick. After asking the cooperation of the ministry "in bringing before the legislature . . . some measure looking toward the more equitable regulation of the practice of the healing art," the resolutions continue: "A large and growing class of 'healers' and 'practitioners' of various names, forms and cults offer their services to the sick and appeal to the public for patronage. They are unlicensed and, therefore, irresponsible so far as regulation by the state is concerned. At the same time they are for the most part ignorant of that scientific knowledge which would enable them to make intelligent diagnoses of disease, to discover contagious diseases and to understand the true limits of their ability, thus causing much needless suffering and numerous untimely deaths. We believe that in the interest of common justice and for the safeguarding of the public health, the laws of our state should be so amended as to require all who assume to treat the sick, by whatever method, to secure a license from the proper state board of examiners after suitable examination as to their qualifications." Probably no men are better able to appreciate the harm done by ignorant "healers" than are the ministers. Their cooperation and support would go far to secure the establishment of a higher standard for entrance into the practice of medicine as well as a stricter and more impartial enforcement of the law for the protection of the public health.

NEEDED CHANGES IN ILLINOIS LAW

Senate Bill 235, which, if adopted, will materially strengthen the Illinois medical practice act, has passed the Illinois Senate and is now in the House. The first section of the bill, as we noted two weeks ago, authorizes the State Board of Health to issue a temporary license good for eighteen months, to medical students who have completed a course of instruction and passed the examination of the board, but who have not received diplomas, the object being to permit the board to license hospital interns who are appointed before their diplomas are given them. The second section of the bill authorizes the board to revoke licenses issued under the acts of 1877 and 1887, as well as those issued under the act of 1899, the present act. This provision is made necessary by a decision of the supreme court (*State Board of Health vs. Ross* (1901), 191 Ill., 87; 60 N. E., 811) which held that owing to the phraseology used in the existing law the board did not have authority to revoke licenses issued under previous laws. At present the state board has no power to revoke a license issued between July 12, 1877, and June 30, 1899, no matter what crime or unprofessional or dishonorable act may be committed by the practitioner holding such license. These two provisions are clearly in the interest of better administration of the medical practice act and of better protection to the public; it is to be hoped that this bill will become a law.

MUNYON THE HOPEFUL

"If the Sign of the Cross were to be destroyed the next best sign would be 'The Index-Finger Pointing Heavenward.'" Thus, in a quarter-page advertisement in one of his home papers, speaks Munyon, the genial quack whose uplifted finger, aggressive pompadour and sugar pills have made Philadelphia famous. Genial, did we say? Well, until recently. Of late Fate seems to have been unkind to this erstwhile dispenser of gladness and saccharine innocuity. Unimaginative government chemists are recently reported to have shown that the principal ingredient in Munyon's blood and asthma "cures" was ordinary cane sugar and the "Professor" has been penalized by the government to the tune of six hundred dollars. But, with a supreme disregard for the petty troubles of business, Munyon announces in large advertisements that he is "organizing a Hope Cult, whose mission is to preach Health-ism, Hope-ism and Love-ism." Talk about optimism! And as a clincher, we find heading one of the "Professor's" appeals to the public, this gem:

> "Don't cringe—don't flinch,
> Should fortune pinch
> And all seem lost;
> With might and main,
> TRY, TRY *again*
> At any cost. —Munyon."

Whether or not the apostle of hope and "homeopathic home remedies," here refers to his business reverses, can only be guessed. That he will "try, try again" to sell his sugar pellets is evidenced by the fact that he has set aside half a million dollars for a new 1911 advertising campaign. "And now abideth faith, hope and charity and the greatest of these"—when backed up with a generous advertising appropriation—is hope!

GOAT'S MILK IN MALTA

Fresh cow's milk is scarce in Malta, and most of the natives use goat's milk. According to U. S. Consul James Oliver Laing, at Valetta, there are about 10,000 milch goats in the islands. These are driven from house to house and milked in the presence of the buyer. Goats are tied at the doors of cafés and when milk is wanted for coffee the goat is milked by the owner. With a little care this method should eliminate much of the contamination of milk under the ordinary methods of handling and distribution. Though a primitive method and applicable only within narrow limits, it would seem to have some advantages. As a large proportion of the goats, however, harbor the germs of Malta fever, the foreign residents refrain from using the milk, and its use is forbidden in the British garrison. Mediterranean fever is intermittent and is one of the most feared diseases in the islands, for, if not fatal, its long duration and the ensuing debility often lead to other maladies. Attempts have been made to better conditions on the goat farms, and some progress has been made. Though milk is an excellent food, it seems to have serious disadvantages, even when drawn from original containers.

FREE MEDICAL EDUCATION

Whether or not the remedy for the most serious evils of our present method of recruiting the profession would be relieved by making medical education free, as Dr. Ferguson suggests in this issue, is an open question, and his arguments do not seem convincing. It would be most unfortunate, as President Vincent said in his address,[1] if the expense of obtaining a medical education should prevent those qualified by natural endowments from entering the profession. We doubt, however, whether this would often occur; at all events Vincent's plan of endowed scholarships is more practicable and in other respects better than the attempt to offer opportunities for free medical education without first applying some test of ability. Free medical education would certainly open the way for a still larger number of incompetents. If we are to reach our ideal of every physician being in all respects a thorough scientist and an honorable gentleman, some other method of selection of the material would be more economical and efficient than that of weeding out the applicants in a free-to-all course of medical instruction. It is a question also whether the number of unworthy and undesirable medical colleges would be diminished to such an extent as Dr. Ferguson seems to expect. A sentence in Dr. Ferguson's paper seems to be somewhat open to misunderstanding, to say the least: The scrutiny of the religious, social and political qualifications of candidates, with the popular signification of those adjectives, has a rather unfortunate sound. Of course it was understood by his hearers as it was meant, merely as a statement of the necessity that the physician should be a gentleman of good moral character.

A GERMAN VIEW OF AMERICAN MEDICAL SCHOOLS

In a recent number of the *Wiener klinische Wochenschrift*, a German-American, writing from this country, discusses medical education, especially the low-grade medical schools, and other medical conditions in this country. The *Wochenschrift* says, in an editorial note on this article:

"All who know anything about conditions in America are full of admiration for the almost model achievements and progress in all lines in that country. It is almost universally conceded that the humanitarian and especially the scientific institutions of America—almost exclusively the creation of private initiative—in the scale in which they are conceived and the perfection of their equipment, cast all that Europe has to offer in this line so much in the shade that the scientists best acquainted with the facts have not hesitated to express their concern that Europe in time will be unable to compete with them, owing to the wise liberality with which scientific research is fostered over there. All this makes it the more interesting to learn that, side by side with conditions almost unsurpassed in their excellence, abuses flourish under the protection of individual liberty—abuses so dire that it seems actually impossible to conceive of their existence, especially in connection with medical education. In the very fact, however, that the Americans themselves have had the courage and the sincerity to lay bare these abuses lies the best evidence of their moral energy and this offers, at the same time, the most certain guarantee of a speedy and radical reform."

While this hearty recognition is encouraging, such a criticism of our educational conditions is and should be mortifying to our national pride. The reasons for the present wide-spread publicity and systematic exaggeration of such abuses as do exist in the profession in America are probably not entirely understood in Germany, yet the *Wochenschrift* is unquestionably right in stating that these abuses "flourish under the protection of individual liberty," and that some of the most flagrant of these abuses are "in connection with medical education." As a people, we have not yet learned that the rights of one man end where the rights of another man begin, and that no individual has a right, even in the sacred name of liberty, to do that which is harmful to the community. The diploma mill and the commercial medical school are unknown in Europe. The ignorant but mercenary physician is justly regarded there as a grave social danger. In these directions we have much to learn from Germany. Only by the establishment and maintenance of high standards of medical education can we hope to retain the respect of other nations and to effect those "speedy and radical reforms" which conditions demand.

1. Vincent, G. E.: Standards and Authority, THE JOURNAL A. M. A., March 25, 1911, p. 894.

Medical News

ILLINOIS

Hospital Bankrupt.—The Evangelical Lutheran Association, Granite City, which owned and managed the hospital in that place, is said to have filed a petition in bankruptcy, March 31.

Personal.—The office of Dr. Joseph Pugue, Edwardsville, was burned, March 27. The building and contents were a total loss.——Fire in Clinton, March 21, destroyed the office of Dr. Joseph C. Myers.

State Sanatorium Bill.—House Bill No. 57 for a state sanatorium for tuberculosis was considered by the judiciary committee of the house of representatives, March 29. Arguments in favor of the bill were made by Representative Shurtleff and by Dr. George W. Webster, president, and Dr. James A. Egan, secretary of the State Board of Health. It is believed that the committee will approve of the bill which carries an appropriation of $500,000.

Scarlet Fever in Chicago Suburbs.—Ravinia, Highland Park, and Evanston have reported recently a number of cases of scarlet fever. In Ravinia, the cause has been traced to a grocery store, in which the postoffice is located, and in which seven children of the proprietor have been ill with scarlet fever, but not quarantined. The contents of the grocery store were confiscated by the State Board of Health and taken to the Skokie Swamp and burned. The store was closed and thorough disinfection of all infected houses was made.

Kill the Optometry Bill.—The optometry bill, House Bill 121, will lie in judiciary committee until action is taken on a similar bill in the senate, No. 140. The State Board of Health requests that the president and secretary of every county society write their senator in Springfield in the name of the society, urging that he oppose Senate Bill 140, and suggests further that the president and secretary urge as many other members as possible to write their senator at Springfield on the same line. The action that the house of representatives will take on the house bill will be predicated entirely by the action that the senate takes on the senate bill. The senate bill is now on order of second reading.

Chicago

Personal.—Dr. and Mrs. Robert H. Babcock and family have returned after two months in California.——Dr. Arthur H. Geiger sailed for Europe, March 31.——Dr. John B. Murphy has returned from a trip to Florida and is ill at his home with typhoid fever.

Health Alliance.—The Citizens' Health Alliance, which was organized in Hull House in November last, has opened permanent headquarters at Room 1202, Ashland Block, and appeals for broader membership. The object of the alliance is to com-

bat preventable disease and deaths. Dr. Hyman Cohen is at the head of the movement and Health Commissioner Evans is a member of the advisory board.

Tuberculosis Dispensary Opened.—For the benefit of persons working or living near the loop, the Chicago Municipal Tuberculosis Sanatorium has opened a downtown dispensary at the Iroquois Memorial Hospital, 87 Market Street, for the free examination and treatment of persons suspected of having, or actually afflicted with, tuberculosis. The dispensary, at present, is open on Tuesday evening from 7 to 9 and on Saturday from 2 to 4.

INDIANA

Permanent Meeting Place for Society.—At the meeting of the Madison County Medical Society, March 28, it was voted to hold all future meetings of the society at Anderson and to rent permanent headquarters in that city.

Presentation.—At the annual meeting of the Hamilton County Medical Society in Noblesville, recently, Dr. William B. Graham, the oldest practitioner of the county, was presented by Dr. Carlton H. Tomlinson, Cicero, with a gold-headed cane on behalf of the society.

New Hospital Dedicated.—On March 23, the new Schneck Memorial Hospital was dedicated at Seymour. This hospital was erected at a cost of $25,000 by Mrs. Mary Schneck in memory of her husband, Lewis S. Schneck. The institution will accommodate seventeen patients.

Society Meetings.—At the meeting of Parke County Medical Society, held in Rockville, March 14, Dr. Robert F. Hester, Bloomingdale, was elected president; Dr. Chester S. White, Rosedale, vice-president; Dr. A. Birch Lockridge, Rockville, secretary-treasurer; Dr. Reeve C. Peare, Bellmore, delegate to the state association, and Dr. Charles C. Morris, Rockville, alternate.

Personal.—Dr. Claude G. Bartlett, Lewisville, who has been ill with facial paralysis, is reported to be improving.——William R. Davidson, M.C., N. G. Ind., assigned to the Third Infantry, Evansville, has been ordered to the Mexican frontier on duty at the maneuvers.——Dr. Charles H. Parsons, Rushville, is seriously ill with paralysis.——Dr. Stanley A. Clark, South Bend, sailed for Europe, March 27.

IOWA

New Hospital for Cresco.—The new building of the St. Joseph's Mercy Hospital, Cresco, is now completed and ready to receive patients. The hospital represents an investment of $45,000, of which $15,000 was donated by citizens, in addition to the gift by Dr. George Kessel of the hospital building, its equipment and grounds. The institution was formally opened March 12.

KENTUCKY

Personal.—Dr. and Mrs. Joseph M. Mathews have returned to Louisville after a trip around the world.——Dr. J. Thomas Wallingford has been reelected health officer of Covington and Dr. L. E. Brinker, secretary of the board of health.

Officers Elected.—At the annual meeting of the Paducah Medical and Surgical Society, March 6, Dr. Oliver R. Kidd was elected president; Dr. Henry G. Reynolds, vice-president, and Dr. James T. Reddick was elected secretary-treasurer.

MARYLAND

Personal.—Dr. W. G. Ash, superintendent of the Forney Sanatorium, Mount Alto, has resigned and will be succeeded by Dr. Eben G. Alexander, Jr., of Jefferson College Hospital, Philadelphia.——Dr. J. Royer Laughlin has been appointed physician of the Bellevue Asylum, Hagerstown.

Fifty Years in Practice.—A dinner was given at the Baltimore Club, March 14, to Dr. Charles M. Ellis, Elkton, "in recognition of his completion of fifty years in the practice of medicine and in the service of his fellow men." The portrait of Dr. Ellis, painted by Julian Story, will be presented to the Medical and Chirurgical Faculty of Maryland at the annual meeting in April.

Baltimore

Grenfell in Baltimore.—Sir Wilfred T. Grenfell, of the Labrador Mission, spent last week in Baltimore, and lectured on his work in the hall of the Medical and Chirurgical Faculty of Maryland, April 1.

Personal Property of College Sold.—The personal property of the Woman's Medical College, Baltimore, which suspended a year ago on account of lack of funds to carry on the work, was sold a few days ago. The museum was bought by Dr. Anna Abercrombie, president of the alumnæ association of the college. The association, it is said, intends to maintain a memorial room in the proposed South Baltimore hospital.

Methodists Buy Hospital.—The three branches of the Methdist church, the Methodist Episcopal, Methodist Episcopal South and the Methodist Protestant, have bought from the faculty of the Baltimore Medical College the Maryland General Hospital, and will assume charge May 1. For ten years the hospital has been under the charge of the Sisters of Charity. The faculty of the college will continue in professional control.

MASSACHUSETTS

Bequests by Bishop's Widow.—By the will of the late Mrs. Amelia Worthington $5,000 is bequeathed to the House of Mercy, Springfield; $5,000 to Clarkson Memorial Hospital, Omaha; and provisionally, dependent on the death of certain relatives, $25,000 to the Children's Hospital, Boston.

Interns Draw Color Line.—Five female interns in the New England Hospital for Women and Children, Roxbury, Boston, resigned, March 22. The cause of the resignation is said to be the appointment of a colored woman as intern in the maternity department of the institution.

Bowditch Gift to Harvard.—By the will of the late Dr. Henry P. Bowditch, $4,000 in cash and all his books and scientific apparatus are bequeathed to Harvard Medical School. The money is to be added to the fund left by his father, J. Ingersoll Bowditch, the income of which is to be "expended under the direction of the professor of physiology for the purpose of original investigation."

Eminent Scientist Dies.—Mrs. Helen Henrietta Richards, instructor in the department of sanitary chemistry at the Massachusetts Institute of Technology since 1884 a pioneer scientist in industrial and sanitary chemistry, who received the degree of doctor of science from Smith College, was a bachelor and master of arts of Vassar College and a bachelor of science of the Massachusetts Institute of Technology, died at her home in Jamaica Plain, Boston, March 30, from angina pectoris, aged 68.

MICHIGAN

Honor Veteran Member.—Dr. Daniel Todd, the oldest practitioner of Lenawee County, who has been in practice sixty years, was the guest of honor at a banquet given by the Lenawee County Medical Society in Adrian, March 22.

Antituberculosis Societies.—At the annual meeting of the Houghton County Antituberculosis Society, held in Hancock, March 14, Dr. Arthur F. Fischer, Hubbell, was elected a vice-president. The treasurer reported a balance of $2,100.——Schoolcraft County Association for the Prevention and Relief of Tuberculosis, at its annual meeting, in Marquette, March 21, reported a membership of ninety, and elected officers for the ensuing year.

Personal.—Dr. Collins H. Johnston, Grand Rapids, left for Europe, March 26.——Dr. Frederick C. Warnshuis, Grand Rapids, was operated on March 24 for the removal of a growth in the nose.——Dr. Austin W. Alvord, Battle Creek, who has been ill with pneumonia, is reported to be convalescent.——Dr. Henry George, Detroit, is reported to be seriously ill in Harper Hospital with cerebral hemorrhage.——Dr. David L. Treat, Adrian, who has been seriously ill, is reported to be improving.

Society's New Home Opened.—Three hundred members of the Wayne County Medical Society attended the formal opening, March 22, of the new home of the society in Detroit, formerly the Marvin mansion, which has been remodeled and equipped at a cost of $20,000. The new home provides a reception parlor for women members of the society, rooms for meeting and club purposes, dining hall, a library containing 10,000 volumes, a clinical laboratory and the Brady room for the use of the nurses of the county.

MISSOURI

Itinerant Healer Fined.—J. C. Elliott, an itinerant healer, is said to have been found guilty of practicing medicine without a license and to have been fined $50 and costs in Milan, March 8.

Health Department Estimate.—The Hospital and Health Board of Kansas City has estimated that $325,000 will be required for the operation of the health department during

the coming year. Of this $136,000 is required by the General Hospital, $28,000 for the new contagious disease hospital and $61,000 from the health department proper.

Court Decides Will Valid.—The Supreme Court of Missouri, on March 31, sustained the validity of the will of the late Robert A. Barnes, St. Louis, who bequeathed about $3,000,000 for the erection and endowment of a hospital to be conducted under the rules and regulations of the Methodist Episcopal Church South.

New Officers.—Howard County Medical Association, at its annual meeting in Fayette, elected the following officers: president, Dr. Uriel S. Wright, Fayette; vice-presidents, Drs. Doke J. Gentle, New Franklin, and Wesley R. Hawkins, Glasgow; secretary-treasurer, Dr. Charles W. Watts, Fayette; delegate to the state association, Dr. Joel Y. Hume, Armstrong, and censors, Drs. Charles O. Lewis, Vaughan Q. Bonham and Andrew W. Moore, all of Fayette.

Personal.—Dr. Isaac R. Lane, Mountain Grove, is seriously ill in Alexian Brothers' Hospital, St. Louis.——Dr. Gustav B. Schultz, Cape Girardeau, has been appointed a member of the State Board of Health.——Dr. John C. Edwards, O'Fallon, is reported to be ill at his home.——Dr. Mason C. Alderman, Sedalia, is seriously ill with heart disease.——The trial of Dr. Fred W. Brown, Billings, charged with performing a criminal operation, resulted in complete vindication of the defendant, March 9, when the circuit court judge gave peremptory orders to the jury to bring in a verdict of not guilty.

St. Louis

Red Cross Endowment Fund.—The St. Louis Committee on Endowment of the American Red Cross reports that $53,159.20 have been contributed of the $70,000 apportioned to the city.

Tuberculosis Commission Resigns.—The Municipal Commission on Tuberculosis resigned as a body, March 27, considering that its work had been completed with the establishment of the Robert Koch Hospital.

Fake Physician Fined.—Annibale Inverso is said to have been fined $50 and costs on each of three charges of practicing medicine without a license, March 23. In default of payment of fine he was committed to jail.

Intern Examination.—At the meeting of the City Hospital Board, March 29, Hospital Commissioner Morfit announced that 94 out of the 106 applicants had passed the examination recently conducted for internes in the City Hospital.

Personal.—Dr. Albrecht Collasowitz has returned from abroad.——Dr. Otto A. Wall, Jr., has succeeded Dr. Albert E. Taussig as editor of the *Weekly Bulletin of the St. Louis Medical Society*, and Dr. Grandison D. Royston has been made associate editor.——Dr. Hugo M. von Starkloff is reported to be seriously ill with appendicitis at St. Anthony's Hospital.——Dr. C. W. Gould, assistant bacteriologist of St. Louis, is reported to be ill with heart disease.

MISSISSIPPI

Personal.—Dr. Vincent Bonelli, Vicksburg, has succeeded Dr. Ewing F. Howard, Vicksburg, resigned as secretary of the Warren-Claiborne County Medical Association.——Dr. B. J. Marshall, Europa, has been elected head counsel of Mississippi Woodmen.——Dr. Sherwood R. Towns, Union Church, has been elected secretary of the Jefferson County Medical Society, vice Dr. John H. Carradine, Fayette, resigned.——A nurse who attempted to shoot Dr. Robert L. Turner, Meridian, two months ago, because of a disagreement is said to have been fined $500.

Society Meetings.—Clarksdale and Six Counties Medical Society held its semi-annual meeting in Clarksdale, March 22. The following officers were elected: president, Dr. Aaron G. Everett, Friar Point; vice-presidents, for Bolivar County, Dr. F. M. Duley; for Coahoma County, Dr. William W. Stuart, Clarkesdale; for Tunica County, Dr. Daniel W. Coker, Tunica; for Quitman County, Dr. Samuel C. Cowan, Sabino; for Tallahatchie, Dr. Sylvanus W. Robinson, Pisgah; and for Sunflower County, Dr. William B. Harrison, Crawford; secretary-treasurer, Dr. Thomas W. Dye, Longwood; censor, Dr. Robert L. Mercer, Shelby; and delegates to the state association, for Bolivar County, Dr. A. M. Wynne, Merigold; alternate, Dr. Thomas D. Allen, Shaw; for Coahoma County, Dr. T. G. Hughes, Clarkesdale; alternate, Dr. E. L. Hooper; for Quitman County, Dr. Frederick M. Brougher, Belen; alternate, Dr. Cyril J. Marshall, Lambert; for Sunflower County, Dr. Richard C. Smith, Potter; alternate, Dr. W. G. Boyd; for Tallahatchie County, Dr. T. F. Clay; alternate, Dr. John A. Harris, Webb; and for Tunica County, Dr. Morris J. Alexander, Tunica; and alternate, Dr. M. L. Minor.——At the annual meeting of the Lauderdale County Medical Society, held in Meridian, Dr. James M. Guthrie was elected president; Dr. George W. Stephens, vice-president; Dr. Samuel H. Hairston, secretary-treasurer; and Dr. William W. Reynolds, delegate to the state association, all of Meridian.

NEBRASKA

Home from Abroad.—Dr. Charles C. Morrison, Omaha, has returned after several months postgraduate work in London.——Dr. Adolph Sachs, Omaha, has returned after twenty months' study in Berlin and Vienna.

Journal Stockholders Meet.—The stockholders of the *Western Medical Review Company* met in Omaha, March 21, and elected the following directors: Drs. August F. Jonas, Frank E. Coulter, Henry F. Akin, Henry L. Burrell and Harold Gifford, all of Omaha.

State Association Meeting.—The Nebraska State Medical Association will hold its annual meeting in Omaha, May 2-4. Dr. John P. Lord has been made chairman of the committee on clinics; Dr. Louis B. Bushmann, chairman of the committee on management; and Dr. Alfred Schalek, chairman of the committee on entertainment.

NEVADA

Abortionist Sentenced.—Dr. Frederick Hugo Wichman, Reno, charged with causing the death of Mrs. Emma J. Ross by an illegal operation in October last, is said to have been found guilty, March 17, and sentenced to imprisonment for eight years in the Nevada Penitentiary. Motions for new trial and for appeal were argued and denied.

NEW YORK

Fire in State Institution.—Fire on April 2, practically destroyed the Northern New York Institution for Deaf Mutes, Malone, causing a loss of about $135,000. The 100 inmates of the institution marched out of the building without panic or injury just before an explosion occurred.

Medical Club Election.—The Utica Medical Club, at a meeting, March 16, elected Dr. Faust S. DeLong, president; Dr. Raymond L. Baker, vice-president; and Dr. Lewis B. Amsfry, secretary-treasurer. Dr. John Gromann, the president, entertained the club and delivered an address on "Chronic Urethritis."

State Board of Charities.—The board reports that the total number of persons supported by the state during 1910 in the state and reformatory institutions was 11,874. Of this number, 3,001 were discharged and 485 died, leaving on the state's hands 8,388 persons. The total value of property in these institutions is $10,303,899.

Medical Journal to be Offered for Sale.—By the will of the late Dr. William Warren Potter, Buffalo, his estate is left to Miss Margaret Bowden, his secretary and chief assistant for twenty-five years. The principal asset of the estate is the *Buffalo Medical Journal*. The will provides that the *Journal* shall first be offered for sale to the medical department of the University of Buffalo.

Celebrate Semicentenary.—On March 31, Schuyler County Medical Society gave a dinner at the Glen Springs, Watkins, in honor of the fiftieth anniversary of the graduation of two of its members, Drs. Charles D. Clawson, Montour Falls, and Gideon O. Smith, Odessa. After the dinner, Dr. Clawson gave "Reminiscences of a Student of Fifty Years Ago," Dr. Smith read a paper entitled "The Recollections of a Young Practitioner Fifty Years Ago," and the Hon. O. P. Hurd, Watkins, made an address on "The Experiences of a Patient Fifty Years Ago."

The Blackwell Memorial.—At the recent annual meeting of the Woman's Medical Society of New York State, resolutions were passed regarding the recent deaths of Drs. Elizabeth Blackwell, Hastings, England, and Emily Blackwell, New York City, who are recognized as pioneers in the study and practice of medicine, and who by their persevering efforts opened the way for other women to enter that field. The society expressed its deep respect for and appreciation of the character and work of the Drs. Blackwell, its indebtedness to them, and its earnest desire to carry forward the work so nobly begun by them.

New York City

Building for Public Health Service.—The United States Government has awarded the contract for a building to serve as quarters for assistant surgeons of the Public Health and Marine-Hospital Service, Staten Island.

XUM

Bequest to Cornell.—The late Dr. Samuel Alexander bequeathed all his surgical instruments and pathologic and anatomic preparations to Cornell University Medical Department.

Personal.—Dr. Reginald Pickett, ambulance physician of St. Vincent's Hospital, Staten Island, was thrown from the ambulance in a collision with an automobile, March 17, and was seriously injured.——Dr. Joseph P. Sheridan, diagnostician of the Queen's Borough branch of the board of health, has resigned, to take effect April 1.

Gifts to Hospitals.—Frederick W. Beinhauer who died recently, provided in his will that on the death of his wife, his real property, less specific bequests, be divided equally between the Presbyterian and German hospitals and St. John's Guild.——Alfred M. Heinsheimer has given $10,000 to the Hospital for Deformities and Joint Diseases as an endowment fund to aid in the equipment and maintenance of the institution.

Fund for Hungarian Hospital.—A new hospital for the benefit of the large Hungarian population of New York City is to be erected on the upper East Side. An option has been secured on several corners between Eightieth and Eighty-Fifth Streets and a large part of the $300,000 for the proposed structure has been subscribed. Plans have been prepared for a nine-story building of steel reinforced by concrete. It is expected that the hospital will be ready for occupancy by the fall of 1912.

Condemnation of Contaminated Food.—Acting under special orders from Health Commissioner Lederle, inspectors of the department of health began, on March 29, active enforcement of Section 46 of the sanitary code, which provides for the shielding of food from dust, dirt, flies and other contamination. The activity of the inspectors was directed especially against street vendors of candy, on whose stands were found large quantities of confectionery exposed for sale in uncovered, unprotected condition.

Gift to Hospital.—Among the many bequests to religious and charitable institutions made in the will of Mrs. Frances Swan Welles is one of $10,000 to the Presbyterian Hospital to provide a permanent fund, half the income from which is to be used to brighten the lives of the nurses in that institution and the other half to brighten the lives of the patients in the general wards. Other bequests were $5,000 to the Bryson Day Nursery and $5,000 to the Belknap Summer Home for Day Nursery Children, Far Rockaway.

Public Drinking Cups Must Go.—Believing the public drinking cup to be a carrier of infectious diseases, the Board of Health has adopted an additional section to the Sanitary Code which will make it unlawful after October 1, 1911, to have what is known as a "common drinking cup" in any public building, institution, factory, theater, school, railroad station or ferry house in the city. The health department is not recommending any special device to take the place of the drinking cup, but experiments by the department have shown that certain stock fixtures can be so arranged as to comply with the requirements of the new ordinance.

Sage Institute Out of City Charities.—The Russell Sage Institute of Pathology, which was founded in 1907 when Mrs. Sage gave $300,000 for pathological research work in connection with the hospitals and charitable institutions on Blackwell's Island, has resolved to terminate the agreement existing with the Public Charities Department and to withdraw its pathologists from the City Hospital and the City Home. Mr. Drummond, Commissioner of Charities, has asserted that the Institute of Pathology used city money without proper supervision on the part of the city; while on the other side the directors of the institute asserted that there was too much politics mixed with the administration of affairs on the island.

NORTH CAROLINA

Hospital News.—A new city hospital will soon be erected in Tarboro.——The new Rutherford Hospital was formally dedicated, March 10. Dr. Joseph Price, Philadelphia, delivered the principal address and held a clinic.——The new infirmary building of the State Normal College for Women, Greensboro, has been completed.

Personal.—The governor has reappointed Dr. Robert H. Stancell, Margarettsville, director of the State Hospital for the Insane, Raleigh, and Dr. William E. Headen, Morehead City, director of the State Hospital for Colored Insane, Goldsboro.——Dr. Isaac H. Faust, Salisbury, has given up the practice of medicine.——Dr. Francis J. Clemenger, Asheville, has been commissioned as captain of the Medical Corps of the National Guard.——Dr. Robert L. Caveness, Coleridge, has been elected president of the Siler City Loan and Trust Company.——Dr. Berte O. Edwards has been elected president of the Merchants and Farmers Bank, Landis.

Work of the Legislature.—In the last session of the legislature the following work of interest to physicians was accomplished: The bill approved by the state medical society and the State Board of Health, requiring a four years' high school course or its equivalent for candidates for medical license, passed the house but was defeated in the senate. This is the third time this measure has been defeated in the legislature. ——The appropriation for the work of the new State Board of Health has been increased from $8,000 to $22,000. The board is also to receive about $4,000 as a tax on water companies, and will also save about $4,000 by the agreement of the state to print its *Bulletin* and other publications.——The county sanitary committee has been abolished, and in place thereof there has been created the county board, consisting of the chairman of the board of county commissioners, mayor of the county town, county superintendent of schools, and two physicians elected by them. The board elects the county superintendent of health who may act as quarantine officer if so desired.——State quarantine of small-pox has been abolished, but local quarantine of counties is left optional.——An act was passed creating a board of nine trustees and providing funds for the building and equipment of a state institution for the feeble-minded. Drs. Lewis B. McBrayer, Asheville; Alfred A. Kent, Lenoir; Ira M. Hardy, Washington; and Robert N. Cartwright, Fairfield, have been appointed members of the board.

NORTH DAKOTA

New Hospitals.—The Ward County Hospital controversy has been settled by turning over the hospital to a hospital association organized by the physicians and business men of Minot.——Dr. Arnt G. Anderson has established an eight-room hospital at Hillsboro.

Meeting of State Antituberculosis Association.—At the annual meeting of the North Dakota Antituberculosis Association, held in Bismarck, Dr. James Grassick, Grand Forks, delivered the annual address, giving a brief review of the work of the association for the past year. The association decided to enlarge the state tuberculosis exhibit, and accepted April 30 as Tuberculosis Sunday. It was reported that nearly 80,000 Red Cross seals were sold during the holidays. The following officers were reelected: president, Dr. James Grassick, Grand Forks; vice-presidents, Mrs. H. L. Bolley, Fargo, and Drs. Victor J. LaRose, Bismarck; Victor H. Stickney, Dickinson, and Andrew Carr, Minot; secretary, Dr. Fannie Dunn Quain, Bismarck; and treasurer, Mrs. J. E. Stevens, Grand Forks.

OHIO

New Department of State Board.—Through the efforts of Dr. Frank Warner, Columbus, the department of epidemiology has been established in cooperation with the State Board of Health for the control and prevention of epidemic diseases.

Plans for Sanatorium Accepted.—The final plans for the joint tuberculosis sanatorium to be erected by Columbiana, Stark, Mahoning, Portage and Summit Counties, have been accepted by the trustees. The sanatorium will be located on the Bixler farm near Akron.

Old Physicians Honored.—About eighty physicians of Montgomery Medical Society were present at a banquet in Dayton, given in honor of Drs. James M. Weaver, Dayton, and Samuel Souders, Dean, in celebration of the fiftieth anniversary of their medical practice. Dr. Souders was unable to attend the banquet on account of ill health. Dr. Horace Bonner was toastmaster. Dr. John S. Beck spoke on "Our Guests," and Dr. John C. Reeve, dean of the profession in Dayton, gave "The Greet of a Veteran Comrade."

Personal.—Dr. Harry D. Belt, Kenton, has sailed for Europe. ——Dr. Michael A. Bartley has succeeded D. Rush Robinson, resigned, as district physician of the west side of Columbus. ——Dr. Myron S. Clark has been reelected president of the board of health of Youngstown.——Dr. Arlington C. Holland, Marion, chief statistician of the state registrar of vital statistics, will, it is said, succeed Dr. Fred L. Watkins, Columbus, in that position.——Dr. W. Dallas Hoyer, health officer of Sandusky, has resigned and has been succeeded by Dr. Hiram D. Peterson.

Health Official Exonerated.—At a meeting of the board of health of Lorain, March 15, a resolution was adopted exonerating Dr. William A. Pitzele of the charges made against him by Dr. William F. Dager of connivance with local midwives. The board concluded that Dr. Pitzele was innocent of any wrongdoing, or breach of professional courtesy, and that he had

done nothing deserving censure or in any way reflecting on his professional or personal integrity or honesty. The board also found that the action taken by Dr. Dager in the matter would have been fully justified had the information which he received been founded on facts.

Cincinnati

Personal.—Dr. Sigmund Wolf has been appointed physician to the Municipal Lodging House.——Dr. Clarence Bahlman has succeeded Dr. Franklin H. Lamb, resigned, as chemist and bacteriologist to the Cincinnati Board of Health.——Dr. Robert D. Maddox has been appointed a member of the orthopedic staff of the City Hospital.

Buildings of Contagious Group Opened.—On March 25 and 26, six new buildings of the contagious group of the Cincinnati Hospital were opened for public inspection. At a meeting of the board of hospital commissioners, last week, the specifications for the entire group of eighteen buildings were approved unanimously. These buildings are in addition to the six of the contagious group just completed, and will cost in the neighborhood of $1,850,000. In addition to wards for patients there will be administration building, receiving ward, nurses' dormitory, kitchen and dining room, room for women employees, operating building, power and laundry building, and stable and garage. The pathologic building will be five stories in height and will include a morgue, chapel and teaching department.

PENNSYLVANIA

Oppose Antivivisection Bills.—A hearing on the antivivisection bills took place before the house health and sanitation committee, representatives of the various medical schools appearing against the bills. Among these were Drs. Alfred Stengel, David Riesman and A. E. Taylor, University of Pennsylvania; Seneca Egbert and Joseph McFarland, Medico-Chirurgical; R. A. Remington, Philadelphia College of Pharmacy, and State Veterinarian, C. J. Marshall.

Governor Favors Change in Medical Bill.—Governor Tener favors reconstructing the present medical bill. The provisions of the new measure will be substantially those of the Gerberich-Wasson measure now in the committee of health and sanitation in the senate. An amendment will be proposed to the bill to definitely fix the compensation of the examining board. This board will be composed of the state commissioner of health, the state superintendent of public instruction and five others to be appointed by the governor. Of these latter, there will be one member of each branch, regular, eclectic and homeopathic. The remaining two will not be members of the same school.

Philadelphia

Gift to Hospital.—The Rush Hospital for the Treatment of Consumption has been given $5,000 by Mr. John Wanamaker for the endowment of a free bed.

Elections.—The following officers for 1911 were elected at the last meeting of the Jefferson Hospital Clinical Society: president, Dr. Hobart A. Hare; vice-president, Dr. Frederick J. Kalteyer; secretary, Dr. Elmer H. Funk; treasurer, Dr. Clarence D. Smith, and executive committee, Drs. Aller G. Ellis, P. Brooke Bland, Edward J. Klopp and Edward J. G. Beardsley.

Gifts to College of Physicians.—At the stated meeting of the College of Physicians, April 5, Dr. John B. Shober read a memoir of the late Dr. George Couvier Harlan, after which a portrait of Dr. Harlan was presented to the college on behalf of the daughter, Mrs. Harry Post Mitchell.——A portrait of Dr. James Tyson was also presented by Dr. George A. Piersol on behalf of the donors.——Another gift to the college was an acupuncture needle and a lancet, used by native Korean physicians.

Dr. Scott Memorial.—Ten thousand dollars has been contributed to the University of Pennsylvania to establish a memorial to the late Dr. J. Alison Scott, adjunct professor of medicine in that institution. This memorial will take the form of a fellowship for medical research. Of the interest money $200 will be spent each year to help some medical student to finish his course, while the remainder will be reinvested until the entire sum is large enough to support a physician, able to do research work.

Important Notice to Physicians.—The following postal card notice was sent to all physicians of the city from the Registration Office of the Bureau of Health:

> The Pennsylvania State Department of Health, conjointly with the Philadelphia Bureau of Health, is taking a block census of children under 2 years of age born in Philadelphia. This work will henceforth continue regularly. Where unregistered births are discovered an immediate prosecution will be instituted against the physician, midwife, institution or person found to be negligent. This notice is intended as a warning—that the law requiring the registration of all births within ten days of their occurrence will be absolutely enforced in every instance. Stillbirths must be registered both as births and deaths.

Efforts to Overturn Pure Food Laws.—An attempt to overthrow the pure food laws of the state by permitting the use of sulphur dioxid in the manufacture of candy, was disclosed in a bill presented to the legislature by Representative Edwin M. Abbott, March 30. This bill makes the second attempt within a short time to overturn the pure food laws. The first bill introduced by Senator James P. McNichol provided that saccharin might be used in "soft drinks," while the Abbott bill amends the present pure food law by allowing the use of sulphur dioxid in the manufacture of candy.

GENERAL NEWS

Association for the Study of Epilepsy.—The National Association for the Study of Epilepsy and the Care and Treatment of Epilepsy will hold its annual meeting in St. Louis, June 16, under the auspices of the St. Louis Medical Society. This date has been set so that members may attend the Denver meeting of the American Medico-Psychological Association, and still reach Los Angeles in ample time for the meeting of the American Medical Association.

Threatens Marine Hospital Surgeon.—The surgeon general of the Public Health and Marine-Hospital Service has received a report from Surgeon Henry D. Geddings, on duty at Naples, to the effect that his life has been threatened because of his activity in the cholera situation. Geddings has received anonymous letters threatening his life and has been pelted with vegetables and decayed fruit. The situation became so disagreeable that the authorities of Naples have furnished him with a guard.

Prevention of Infant Mortality.—The second annual meeting of the American Association for the Study and Prevention of Infant Mortality will be held in Chicago, November 16-18. The work of the association will be in six sections: Midwifery, Dr. Mary Sherwood, Baltimore, chairman; eugenics, Prof. H. O. Jordan, University of Virginia, chairman; public school education, Dr. Helen C. Putnam, Providence, R. I., chairman; housing, Mr. Lawrence Veiller, New York City, chairman; milk, Prof. E. O. Jordan, University of Chicago, chairman; and rural communities, Dr. Edward W. Saunders, St. Louis, chairman. Special reports will be made on the relative value of existing agencies in infant welfare work and on the work being carried on in this country, Great Britain and continental Europe in the prevention of infant mortality.

International Medical Congress.—The Seventeenth International Medical Congress will be held in London in the summer of 1913, the exact date being fixed by the permanent committee which will assemble in London, April 21 and 22, under the presidency of Dr. Frederick W. Pavy, London. At this meeting a list of the sections of the congress will be arranged. Any wishes or suggestions concerning the arrangement of this list may be sent, up to April 1, to the secretary of the permanent committee, Prof. H. Burger, Vondelstraat, I, Amsterdam, Holland, or to the bureau of the committee, Hugo de Grootstraat, 10, The Hague, Holland. The committee will also be glad to receive before that date, any information or suggestions regarding the organization of the congress. This is the first time any international medical congress has been organized with such broad preliminary work, and it is hoped to get out of ruts and the influence of traditions and to make the congress represent the advance of science in congresses as well as in the science for which the meeting stands. The appeal of the committee for suggestions should be heeded. Dr. John H. Musser, 1927 Chestnut Street, Philadelphia, the American member of the permanent commission, expects to attend the meeting of the commission in London and will be glad to present any suggestions made by the readers of THE JOURNAL.

FOREIGN NEWS

Sanitary Progress in Latin America.—The little island of Curaçoa, just north of the most northern point of South America, is a gateway to Porto Rico and the Panama Canal Zone; consequently it is satisfactory to learn that the colonial government has made strenuous efforts to exterminate rats. The war of extermination was instituted last year when plague appeared at the two principal ports of Venezuela to the south. Cable despatches also state that the city of Guayaquil, the main port of Ecuador on the Pacific Coast, has engaged engineers to install a new drainage and water-supply system and rebuild portions of the city to place it in first-class sanitary condition. Eight millions have been appropriated for this purpose. The way in which Buenos Aires is handling the rat question was described in these columns March 18, page 824.

XUM

Rio de Janeiro has been transformed in the last few years so that it now ranks among the healthiest cities in the world. Oswaldo Cruz, who had charge of the sanification of Rio, is now engaged in a similar task at Para, at the request of the city of Para, which is near the mouth of the Amazon River and is the headquarters of the Brazilian rubber trade. Cruz took with him ten leading sanitarians besides an office force and seventy aids. The entire force is under contract to the state of Para and the task of sanification is now well under way. In all the reports of the progress of sanitation in Latin America there is always some reference to the "Americans" having blazed the way—it is certainly curious how the countries to the north and south of the United States unanimously restrict the term "Americans" to the people of this country. The people of the United States have never arrogated to themselves the exclusive title of "Americans," but our neighbors north and south seem to have voluntarily thus crowned us.

Deaths in the Profession Abroad.—In addition to those already mentioned in our foreign correspondence, the following eminent physicians have died recently: J. dos Santos, Viscount de Ibituruna, the Nestor of the physicians at Rio de Janeiro and long a leader in preventive medicine, president of the Brazilian Liga contra a tuberculose, formerly president of the city council and of the board of public health, aged 83.——C. van Cauwenberge, professor of gynecology and obstetrics at the university of Ghent.——At Lima, Peru, F. A. Suter, professor of surgery, aged 37. He was called to this post from Switzerland in 1908.——W. F. Sprimon of Moscow, founder in 1881 and editor of the leading Russian medical monthly, *Medizinskoe Obozrenie*.——M. Nery, professor of nervous and mental diseases at the University of Rio de Janeiro and on the editorial staff of the *Brazil Medico*.——C. A. MacMunn of Wolverhampton, Eng., well known for his physiologic research, especially the application of the spectroscope to physiology, author of "The Spectroscope in Medicine" and of other works on physiologic and pathologic chemistry, aged 58.——Arthur Frame Jackson, M.B., 1909, Cambridge and Liverpool; D.T.M., 1910, Liverpool; a young medical missionary of great promise, a member of the staff of the Presbyterian Hospital, Mukden, Manchuria, and in charge of the section of that city in which 80 per cent. of the deaths from bubonic plague have occurred, contracted that disease January 23, and in spite of injections of Yersin's serum, and all that medical science could do, died January 25, aged 26. At the memorial services held in the British Consulate General, Mukden, February 1, Hsi Liang, viceroy of Manchuria, paid the following tribute to the work and memory of Dr. Jackson:

> We have shown ourselves unworthy of the trust laid on us by our emperor; we have allowed a dire pestilence to overwhelm the sacred capital. His majesty the king of Great Britain shows sympathy with every country when calamity overtakes them. His subject, Dr. Jackson, moved by his sovereign's spirit, and with the heart of the Savior, who gave his life to deliver the world, responded nobly when we asked him to help our country in its need. He went forth to help us in our fight; daily, where the pestilence lay thickest, midst the groans of the dying, he struggled to cure the stricken, to find medicine to stay the evil.
>
> Worn by his efforts, the pestilence seized on him, and took him from us, long ere his time. Our sorrow is beyond all measure, our grief too deep for words. Dr. Jackson was a young man of high education and great natural ability. He came to Manchuria with the intention of spreading medical knowledge and thus conveying untold blessing on the eastern peoples. In pursuit of his ideal he was cut down. The Presbyterian mission has lost a worker of great promise, the Chinese government a man who gave his life in his desire to help them.
>
> O, spirit of Dr. Jackson, we pray you intercede for the 20,000,000 people in Manchuria and ask the Lord of heaven to take away this pestilence, so that we may once more lay our heads in peace on our pillows. In life you were brave, in death you are an exalted spirit. Noble spirit, who sacrificed your life for us, help us still and look down in kindness on us all.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, March 25, 1911.

A Novel Doctrine of Ventilation

At the Institution of Heating and Ventilating Engineers, Mr. Leonard Hill, the eminent physiologist, described a remarkable series of experiments which he and his staff at the London Hospital have made, and which have led to a doctrine of ventilation that is a complete revolution. He began by referring to evidence which he gave before a royal commission on the conditions of weaving sheds. In these sheds there must be a high degree of humidity. The health authorities insist that the percentage of carbon dioxid must not rise above the usual amount allowed, say 10 parts in 10,000, but the work people want the sheds to be shut up and "stew in their own juice," so to speak. They wanted to get the requisite humidity from their own breaths rather than from admission of warm vapor. Now, curiously, the regulations, while forbidding more than a certain amount of carbon dioxid, did not prescribe any limitation of the wet-bulb temperature. But Mr. Hill found that carbon dioxid does not do any harm whatever, while a wet-bulb temperature of 75 degrees is very bad and ought not to be tolerated in any factory. All the current teaching of the hygiene of ventilation runs on the chemical purity of the air; but according to Mr. Hill the essential thing in ventilation is heat, not chemical purity. It does not matter if there is 1 per cent. more carbon dioxid and 1 per cent. less of oxygen. In the worst ventilated rooms there is not 1 per cent. less of oxygen. The only effect of an excess of carbon dioxid is to make one breathe a little more deeply. A much higher amount has to be attained to have any toxic effect. As to organic impurities derived from respiration, there is no physiologic evidence of their toxicity or that they are of any importance except as an indicator of the number of bacteria in air. Chemical purity of the air is desirable in order to diminish the chance of infection, but in halls and theaters there is very little chance of preventing infection from persons who sneeze or cough out thousands of bacteria. Even when a man is speaking, he is spraying out bacteria in front of him. The really important thing is immunity to such bacteria. In the case of water-borne disease we can prevent infection but not in the case of air-borne disease. The way to keep air best from the physiologic point of view is shown by the following experiment performed by Hill at the London Hospital: Into a small chamber which holds about 3 cubic meters he put eight students and sealed them up. They got into the chamber joking and lively. At the end of half an hour the wet-bulb temperature had risen to 85 F. They had ceased to laugh and joke and their faces were congested. The carbon dioxid had gone up 4 or 5 per cent. and the oxygen down to a corresponding extent. Hill then put on three electric fans and merely whirled the air about just as it was. The effect was like magic; the students at once felt perfectly comfortable, but immediately the fans stopped they felt as bad as ever. In another experiment, a man in the chamber breathed through a tin of soda lime so that he got no carbon dioxid. When the wet-bulb temperature rose to 85 degrees sweating and discomfort came on, just as in the first experiment, and when the fans were turned on he got the same relief. Then a bag containing carbon dioxid was connected with the chamber and enough of the gas was admitted to raise the percentage of carbon dioxid to 2 per cent. The man in the chamber felt no ill effects whatever and even did not know that the gas had been admitted, but he was observed to breathe more rapidly. These experiments, Hill asserts, show that all the discomfort from breathing air in a confined space is due to heat and moisture and not to carbon dioxid. Even after forty-five minutes in the chamber there were no after-effects such as headache. In a crowded room, the air is at the body temperature and there is no circulation; therefore it becomes saturated with moisture and we have no means left of keeping the body temperature down. We cannot radiate heat because we are of the same temperature. We cannot lose heat by evaporation because the air is entangled among our bodies and cannot get away. Then the heat-regulating mechanism is strained and in order to keep the body temperature down the heart has to beat very much faster and we feel miserable, but as soon as the air is made to move relief is given. Mr. Leonard Hill concludes, therefore, that when it is not possible to keep the air of a building up to the chemical standard of purity laid down in the text-books the proper course is to keep the air moving. In weaving sheds the wet-bulb temperature must be kept below 75 F. There are mines in Cornwall in which the wet-bulb temperature is often up to 90 F. and the men do not do an hour's work in the day; they drink enormously and pour the sweat out of their boots. The open air treatment that is so much talked about is not, he declares, a matter of fresh air, it is merely the constant cooling of the body by the circulation of air which makes us eat more and be more active. This leads to a general strengthening of the body because the blood is not only circulated by the heart but by every muscle in the body. There cannot be efficient circulation without constant movement and activity. If there is constant cooling by ventilation then a person is kept more active and the general health is improved.

Sir Francis Galton's Bequest for the Study of Eugenics

Sir Francis Galton, notice of whose death appeared in THE JOURNAL, February 4, p. 359, made a remarkable bequest of residuary estate, which is expected to amount to $325,000, for the advancement of eugenics, the science of race improvement, which he initiated in 1901. The money is to be used to endow

a "Galton Professorship of Eugenics" at the University of London, with a laboratory and a library attached thereto. According to the words of the testament: "It shall be the duty of the professor to pursue the study and further the knowledge of national eugenics, that is, of agencies under social control that may improve or impair the racial faculties of future generations physically and mentally." The professor will be expected to collect material bearing on eugenics, to provide, under appropriate restrictions, information to private individuals and public authorities concerning the laws of inheritance in man; to urge the conclusions as to social conduct which follow from such laws, and to extend the knowledge of eugenics by instruction, publications, lectures and experimental or observational work. Sir Francis Galton left property to the gross value of $575,000. Thus, he left more than half of his estate for the advancement of the subject he had so much at heart. He also expressed the desire that the first holder of the chair should be Prof. Karl Pearson, the well-known protagonist of biometric methods, who shall have liberty to continue his biometric laboratory at University College.

The Small-Pox Epidemic

The small-pox epidemic in London appears to be at an end. No fresh cases have been reported for a fortnight. An outbreak of small-pox occurred at Bury in Lancashire, and there are now twenty-five patients in hospital. The outbreak has been traced to a mill in which all the affected people were employed. The mill has been closed in consequence of the operatives declining to work. The warps and weft in several looms have been ordered to be destroyed and about 3,000 finished pieces of cloth have been disinfected.

MANILA LETTER

(From Our Regular Correspondent)

MANILA, Feb. 13, 1911.

Effect of Tropical Climate on White Men

For all time, the discussion of any phase of the general topic, the effect of the tropics on the white man, doubtless will attract more or less attention. This effect, which is at once apparently so evident, and yet at the same time so difficult to prove absolutely, is bound to give rise to a great deal of scientific, semiscientific and popular discussion. That one does undergo a change in himself after coming to tropical Oriental countries is universally admitted. But whether this change is for good or bad in many cases might be open to doubt. A great deal depends on the personal element, one's former habits and environments and the habits, environments and associations which he falls into or acquires in the hot climate. For instance, for many Americans who are given to too much of the so-called American hustle, a temporary residence in the tropics is likely to prove directly beneficial. On first arriving in the tropics from a temperate climate a man finds himself burdened with a great desire for sleep—long hours of sleep at night and a nap after lunch. Any strenuous exercise quickly exhausts him, and tennis is very often the limit of his powers of exertion. This condition does not obtain usually more than three or four months, and he feels himself normal again, capable of much more exercise, and work ceases to be a burden, although in the meantime he has probably adjusted his activities to a slower pace.

The agents which are responsible for this effect, and for the more obscure and serious effects believed by many to be experienced by persons from temperate climates who remain in the tropics for a long time, are still unknown. The intense heat, the prolonged hot season, the glare of the tropical sun and the actinic rays of the tropical sun all have been indicted. Recent physical experiments made at the Bureau of Science, Manila, tend to rule out the actinic rays. In regard to the actinic rays, there have been made also in the U. S. Army in the Philippines, by the Tropical Diseases Board, a series of observations on soldiers wearing orange-red underwear. Cloth of this color had been supposed to be relatively impervious to the actinic rays of the sun. Hence, people wearing orange-red clothing would be almost immune to this supposedly injurious tropical agent. The following report has been made:

"During the quarter, the tests of the orange-red undercloth-ing, which have been under way for over a year, were completed, and the work of compiling the great amount of data obtained from these observations was carried out by Captain James D. Phalen of the Medical Corps, who has submitted an extensive special report on the subject. A summary of the work is as follows:

"The test of the orange-red underwear and hat linings was undertaken as a result of recommendations by the Inspector-General of the Army. The garments were prepared at the Philadelphia depot of the Quartermaster Department, and were of a deep orange-red color. The shirts averaged one-fifth of an ounce heavier than the white ones worn by the controls. The orange-red drawers were of a different type from the white ones and averaged 1 1/5 ounces heavier. The garments faded materially on washing, especially if exposed to the sun while drying. However, the inner surface retained much of the dye, and it is not thought that the fading was so great as to destroy the value of the tests.

"It had been intended to equip 1,000 men with the special underwear and an equal number of controls with white, but owing to inability to fit sufficient men from the 5,000 suits furnished, it was found impossible to equip over 500 with the orange-red garments. The tests were carried out under the immediate supervision of the following medical officers at the posts shown after their names: Major C. C. Collins, Fort McKinley, Rizal, P. I.; First Lieutenant C. L. McKinney, Camp Stotsenburg, P. I.; First Lieutenant H. A. Philips, Camp Jossman, Guimaras, P. I.; First Lieutenant C. D. Cowles, Jr., Zamboanga, Mindanao, P. I.

"The men wearing the special clothing and the controls wearing the white were taken from the same companies, which were equally divided in such a way as to make the two groups as nearly as possible equal in physique. Those with long tropical service, or who were exceptionally weak, were excluded.

"The experiment was kept up during the calendar year of 1909, and a summary of the results are as follows:

"(1) Weight:—There was a loss of weight during the year in both groups of men, more marked in the mid-year (hot season) weighings, a certain amount of the mid-year loss being made up by the end of December. The loss of weight at the mid-year observations was greater by an average of 1 pound for the orange-red group men than for the control group. At the end of the period of observation there was no difference of weight in the two groups.

"(2) Blood Examinations:—The result in both groups agreed in character if not in degree with those of Captain Wickline of the Medical Corps, showing an increase above normal in the number of red cells and a decrease in the percentage of hemoglobin, the hemoglobin index being necessarily still more diminished. The increase of red cells and the decrease of hemoglobin were both more marked in the orange-red group than in the controls. Both this change and the greater loss in weight, referred to above as the lower blood-pressure mentioned below, may have been due to increased perspiration on the part of the orange group during the hot season.

"(3) Blood-Pressure:—The blood-pressure of both groups fell during the hot season, the fall being slightly more marked in the orange-red group. In December the pressure in both groups returned to practically the original point.

"(4) Pulse, Temperature and Respiration:—These were taken after drill or other exercises, 8,000 observations being made. Averages for 1,500 observations are shown in the following table:

Orange-red group	98.792	91.2	22.3
White group	98.780	90.9	21.3

"It will be seen that each is higher for the orange-red group than for the controls, but the differences are very slight.

"(5) Comparative:—Sick reports showed insignificant differences. The admissions per 1,000 and the days lost per 1,000 were, respectively, 508 and 3,526 for the special group, and 478 and 3,522 for the white group. The admissions per 1,000 for heat exhaustion were higher for the orange-red group, twenty-seven as compared with twenty-one for the controls.

"(6) Strength Tests:—Strength tests on men from the two groups showed nothing of value.

"(7) Symptoms Referable to Climate:—The two groups suffered about equally from these except as regards excessive perspiration, which was much more complained of by the men of the orange-red group.

"(8) Impressions of the Wearer:—Sixteen men preferred the orange-red garments, fifty-four had no choice between the colors, and the remainder, nearly 400, expressed an opinion adverse to the colored underwear. Fifty said it was hotter and 104 others stated that it caused more profuse perspiration. No organization commander saw any benefit from its use, and of sixteen officers who used it for a time, only one expressed approval.

"(9) Photographic Experiments:—Experiments showed that the campaign hat was as impervious to the rays affecting the photographic plate, without the orange lining as it was with it. The lining added materially to the opacity of the khaki cap. The differences in penetrability by actinic rays between a light skin and a dark Filipino were slight, and were entirely

neutralized by one layer of khaki uniform cloth. The pigment of the darkest skin was found nowhere nearly so protective as was the orange-red garment.

"(10) Temperature Experiments:—Extensive experiments, both on and off the body, showed that, when exposed to the sun, the temperature was greater beneath the orange-red material than it was beneath similar white material. The same was found to be true when both materials were overlaid by khaki cloth.

"(11) Moist Heat Experiments:—These were carried out at Los Banos in a room ranging from 90 to 98 F. and with the atmosphere saturated with moisture. Men remaining four hours in this room lost greatly in weight and had a marked rise in temperature, with acceleration of pulse and respiration and fall in blood-pressure.

"From the results of the whole test and the experiments the conclusion was reached that the physiologic effects of the climate in the Philippines can be and probably are produced by moist heat without the aid of the sun's actinic rays, and no evidence was found that the sun's rays alone could or did produce these effects. On the contrary, the test underclothing added materially to the burden of heat which the system was compelled to endure and which is probably the chief cause of tropical deterioration. Even if the actinic rays have any influence whatever on the system, it is believed that they are sufficiently excluded by the khaki uniform and the campaign hat."

PARIS LETTER

(From Our Regular Correspondent)

PARIS, March 24, 1911.

Statistics of Cancer

Dr. Jacques Bertillon, of the service of municipal statistics of Paris, on March 24 made an interesting communication on the statistics of cancer to the Académie de médecine. Drawing his material from the sanitary statistics of the communes published within the last three years by the interior department, he showed that it was easy to mark out on a map of France the region where cancer is frequent in the country and that where it is rare. If one draws a line from Caen to Angers, another from Angers to Dijon, and a third from Dijon to Mézières, in the quadrilateral formed by these three lines and the northern frontier are included all the departments which are most affected by cancer. Outside of this quadrilateral, on the other hand, except for La Vendée and l'Isère, are the departments where cancer is a third or a fourth as frequent. This fatal quadrilateral corresponds quite closely to the chalky basin of which Paris is the center. On the southwest, one may trace another quadrilateral as much exempt as the other is affected, by drawing a line from La Rochelle to the Rhône to the south of Lyons. The quadrilateral formed by this line, the Rhône, the Pyrénées and the two seas does not contain a single department where cancer is notably frequent. These statistics concern only the communes having less than 5,000 inhabitants, that is to say, the country; nevertheless, the distribution of cancer in French cities is identical with its distribution in the country.

In general, cancer is more frequent in the northern countries of Europe (England 91 deaths per year per 100,000 inhabitants, Norway 100, the Netherlands 101) than in the center of Europe (Prussia 71, Austria 78, France 76) and much more rare in the countries bordering on the Mediterranean (Spain 48, Italy 61, European population of Algeria 32). Its frequency, however, is increasing in all countries without exception. In England it has almost trebled within fifty years. The statistics of the other countries do not go back so far, but show at least as rapid an increase. The statistics of Paris show that cancer is not increasing in subjects under 55. Cancers of the stomach and the alimentary canal in general are increasing, but not cancers of the breast or of the genital organs. Is this state of things to be attributed to our diet? This is a point which cannot be answered. At all events, cancer is at present one of the most cruel scourges of humanity. In England it causes almost as many deaths (34,053 in 1909) as pulmonary tuberculosis (38,639). In France it caused 30,124 deaths in 1908.

The Statistics of the Public First-Aid Service

The public first-aid service of the prefecture of police has just compiled the statistics of the work done during 1910. The first-aid pavilion established on the borders of the Seine received 321 persons (247 men and 74 women) who were rescued from the river; of these three were not revived; 132 had thrown themselves into the water intentionally. In the first-aid stations of Paris 268 wounded and 12 sick persons were cared for. In the suburbs 78 wounded and 17 sick were cared for. The litters of the various stations of the arrondissements were used 661 times. The ambulances installed at the time of the ceremonies and public celebrations received 302 persons, 120 at the national festival, 62 during carnival.

Personal

Dr. Séverin Arloing, professor of experimental and comparative medicine at the Faculté de médecine de Lyon, and director of the veterinary school of that city, has just died suddenly. He was a correspondent of the Académie des sciences and a national associate of the Académie de médecine de Paris. His works on comparative pathology, some written by himself alone, some in collaboration with M. Chauveau, brought him a great reputation. In his latter years he devoted himself especially to research on tuberculosis.

Dr. Charles Debierre, professor of anatomy at the Faculté de médecine de Lille, has just been elected senator.

Measures Against Depopulation in Belgium

Serious inquietude is beginning to be felt in Belgium over the constant diminution of the birth-rate, which has been going on for some years. A bill has recently been proposed to punish by imprisonment of from one to three years, physicians, midwives and pharmacists who recommend means of abortion; also, to punish by imprisonment of from six months to three years and a fine of from $40 to $600 (200 to 3,000 francs) anyone who shall sell, put on sale or even privately offer drugs, instruments or objects intended to produce abortion, whether the attempt be effective or not.

Diminution of the Number of Abandoned Infants

According to the statistics communicated by M. Mesureur, director of the public charities (Assistance Publique) of Paris, the number of abandoned infants has diminished considerably, especially the number of abandoned infants from 8 to 15 days old. There were 1,500 such infants abandoned in 1900 and 1901; 1,300 in 1905, 1,100 in 1907 and 1908, and 1,000 in 1909, or a diminution of a third in ten years.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, March 17, 1911.

Personal

Dr. Seydel, extraordinary professor of legal medicine in Königsberg, celebrated the golden jubilee of his doctorate March 2.

Professor von Angerer, the body physician of the prince regent of Bavaria, was granted, on the occasion of the ninetieth birthday of the latter, a hereditary title of nobility.

Centennial of the University of Breslau

In August of this year the centennial of the University of Breslau occurs. In view of this circumstance, Dr. Paul Schottländer, a son of the well known publisher in Breslau, has contributed $62,500 (250,000 marks) for the aid of students and assistants of the Breslau university who are making tours for the purpose of investigation.

Prize Offered for Essay

A newspaper appearing in Frankfort called *Die Umschau* has offered a prize of $300 (1,200 marks) for the best work on the question "What do the inferior elements of the race cost the State and Society?"

Proposal to Establish a Department of Psychiatry in the Imperial Health Office

The well known psychiatrist, Professor Sommer of Giessen, has presented a petition to the Reichstag asking for the foundation of a department of psychiatry in the Imperial Health Office. The institution is to consist of a department for statistics and records of institutions, a department for clinical and forensic psychiatry, and a department for heredity and mental hygiene. Both the committee in charge of the petition and the government have characterized the plan as impracticable and so the proposition was merely referred to the imperial chancellor without comment.

Prize Articles on the Early Clinical Diagnosis of Cancer

The German central committee for cancer research has awarded prizes of $250, $125 and $75 (1,000, 500 and 300

marks) for the three best articles on the early diagnosis of cancer by clinical means which are suitable for distribution as circulars to practitioners. The prizes have been given in this order: Dr. Fischer-Defoy of Quedlinburg, Prof. Karewski, the well known surgeon of Berlin, and Dr. Hollmann of Solingen.

Discussions of the Reichstag Committee on the Antiquackery Bill

The further proceedings of the committee on the third section of this bill, namely, the forbidding of treatment by means of mystical processes, have increased the number of remarkable statements on the part of the conservatives and members of the center group on the value of the mystic methods of treatment. One conservative declared on the ground of thirty years' experience, that the so-called incantations (*Besprechen*) are of value for human beings as well as for animals. There occurred in connection with it a reflex action on the nervous system of the person who used the treatment. He had himself seen cases in which men who used incantations on animals, were themselves made to vomit. In his view there was a secret relation between the conjurer and the conjured, and there were secrets in nature which science so far is unable to explain. A member of the center group emphasized that the limits between faith and superstitution were so difficult to draw that it is dangerous to attempt to define them. Naturally these grotesque views are held up to ridicule in the papers, and this has had the favorable effect that the representatives of the conservatives and of the central party are more reserved in their expressions. It is to be hoped that the passage of the law against quackery will be promoted thereby.

Proposed Settlement of the Insurance Physician Question

The committee of the Reichstag which has the new insurance legislation under consideration, has, after much debate, reached a determination of the relations between physicians and the Krankenkassen, the most favorable to physicians of any that have so far been made. Whether the committee's report will be accepted by the house, remains to be seen. The most important paragraphs are as follows:

The relations between the Krankenkassen and the physicians shall be determined by a written contract. The Kasse (sick benefit club) may, except in urgent cases, refuse to pay other physicians. So long as it does not distinctly increase the burden of the club, it shall give its members free choice of at least two physicians. If the insured will pay the extra cost he shall have the right to choose among the physicians appointed by the clubs. The club may, however, decide that the patient can change his physician during the business year, or during the treatment of the same insurance case, only with the permission of the management. If the care of the sick by any sick benefit club is seriously menaced by the fact that the club cannot make a contract with a sufficient number of physicians or because the physicians do not keep their contract, the chief insurance officer may empower the sick benefit club to pay cash instead of furnishing nursing or medical care, to the extent of two-thirds of the average amount of their legal fund for sickness. The chief insurance office may at the same time determine: 1. How the condition of the person who is to receive the service shall be evidenced otherwise than through a physician's certificate. 2. That the club may continue its services as long as satisfactory evidence is furnished or withhold them until such evidence is provided. 3. That the club's duty to furnish service shall lapse if no sufficient evidence is brought within one year after the occasion for service arises. 4. That the club may send those who need medical care to a hospital even if the conditions of Section 199 (Par. 2) are not fulfilled. The club may appeal from the decision of the insurance office to the superior government officers. Section 381 permits the management to provide hospital treatment only through certain hospitals. Certain hospitals, especially those devoted to charity, may be excluded only for important reasons. Section 382 provides: If the hospital or medical treatment provided by any Krankenkasse is insufficient, the chief insurance office may direct that these services shall be furnished by other physicians or hospitals. Section 383 directs that when the Krankenkasse does not obey this order the chief insurance office may provide what is necessary at the expense of the club.

Campaign Against Sensationalism in the Press

The energetic efforts of many people to repress obscenity in language and pictures has been happily extended to the suppression of exaggerated sensational news. The Verband der rheinisch-westfälischen Presse has published an announcement in which the tendency of many newspapers to provide the public sensational news is criticized and reform emphatically urged. The reports of sensational court trials should be condensed to the extreme, as experience shows that unstable minds are easily prompted to the commission of similar crimes by reading such news. The same is true with regard to accounts of crimes, especially those of a sexual nature. Further care should be taken to avoid the collection of items regarding crime in a single number, so that the reader may not lose the sense of the detestableness of such things, and especially that the idea may not be aroused in the mind of the young that deeds so common are inevitable.

VIENNA LETTER

(*From Our Regular Correspondent*)

VIENNA, March 13, 1911.

Increase of Rhinoscleroma in Hungary

Acting on a suggestion thrown out at the last international medical congress in Budapest, a committee for the investigation of rhinoscleroma has been informally constituted in Hungary, and already it has found thirty-seven fresh cases, some of which have been reported on previously. At present it is not yet possible to state whether actual infection is present. Therefore steps have been taken to keep the known patients on a list. The only reliable treatment is surgical: excision of the scleromatous tissues, with subsequent packing of the resulting nasal cavities. The disease, at least in this part of Europe, affects chiefly young and otherwise healthy persons, and does not incapacitate them seriously except when the entire breathing through the nose is stopped.

A State Institution for Infants and Mothers

In compliance with a generous wish of the old emperor, who is extremely fond of children, a large amount of money which had been originally intended for public expenditure has been turned to charitable purposes, especially for the erection of a large institution for the care of infants and for the instruction of mothers. The emperor himself has consented to accept the protectorship of the institute. The plan is to combine the following institutions: a postgraduate school for pediatricians, a school for special infants' nurses, a mothers' school and a school for children with moral and psychic defects, besides a consulting department for diseased and healthy infants. Each district hospital will be invited to send two nurses to the nurses' school, where they will remain one-fourth to one-half year and will be instructed in all subjects pertaining to the care of infants, in health and disease.

Thus in a couple of years a large number of fully trained children's nurses will be available all over the country. Furthermore, trained midwives will be received as pupils in these classes. They will be the chief aid of the doctors in the country, where mothers so often rely on the counsel of the "wise women" in regard to the feeding of babies. It is hoped that they will also be a useful means of propagating breast-feeding. Also the matrons and nurses of orphans' institutes and foundlings' homes will be invited to attend these classes. Physicians desiring to become eligible to the directorship of similar institutions in the country will find opportunity to learn the duties of such a post. Mothers, as well as grown-up girls, will be invited to become pupils in the mothers' classes. They will learn the elementary principles of the practical care of children. They will come into contact with children and babies and mothers and thus will be prepared for duties which they might be called on to fulfil any day. Physicians and teachers will be in permanent attendance on this mother's counsel department. The school for defective children aims chiefly at making these individuals as capable as possible for earning part or whole of their living. At the same time, nurses who wish to take up this branch of their occupation will be able to spend a great part of the day with such persons.

It will be possible to train twenty nurses yearly as special nurses for defective children, forty hospital nurses for children, and as many midwives, while forty infants and twenty older children will be accommodated for periods of six weeks each. Thus about 500 children a year will pass through the hands of the pupils in the institution. A number of destitute mothers will be made able to earn their living as competent nurses, poor women will receive free advice for their babies, and a few hundred children will be under control, so that their lives will have better chances. And besides, the advantages offered to members of the medical profession are also very considerable.

Association News

EASTERN RATES

One Fare and a Half Granted on the Los Angeles Trip East of Chicago

In previous announcements about the Los Angeles Session, it was stated that the eastern railroad rates had not been decided. We are now able to announce that a rate of one fare and a half has been granted for the round trip from points in the Central, Eastern and New England Passenger associations' territory to Chicago and return. The rate from Chicago to Los Angeles and return is $62.50, with $15.00 additional if one returns by one of the northern routes. Full information about rates, hotels, routes, trains, parties, etc., has been given in THE JOURNAL during the past weeks and will be repeated May 13 in the special illustrated number about Los Angeles.

No Program of Section on Dermatology

To the Editor:—The executive committee and the officers of the Section on Dermatology authorize its secretary to notify you of the postponement of the Section program and meeting for one year and that proper announcement be officially made by publication in THE JOURNAL. The action was taken at a meeting of the committee and officers of the Section in New York City, December 28, this action being the outcome of an insufficient number of papers. From eighty invitations issued requesting papers which were sent out in October only five papers were pledged, two being from men on the Pacific Coast.

H. R. VARNEY, Detroit, Secretary.

Miscellany

The Queer Things That Men Eat.—The primitive races of mankind eat many things that seem strange and repulsive to us, though not more so than some of our favorite dainties appear to them. Quoting from the circular of the Dresden Hygiene Exhibition, the *Scientific American* (March 11, 1911) says: At the end of the rainy season the Bushmen of South Africa go foraging, taking with them their wives and children and most of their earthly possessions. The men hunt, using arrows tipped with a poison which appears to be harmless when taken into the stomach. (The South American Indians assert that the curare which they use for this purpose makes the flesh of the game more digestible.) While the men hunt, the women dig edible roots with sharpened sticks. Caterpillars are collected, killed by crushing their heads and carefully packed in grass for future use. The aborigines of Australia live largely on the seeds of many species of grasses, for each of which they have a distinctive name. They also eat the seeds of various palms, many roots and bulbs and the gum exuded by trees. A sort of bread is made of the injua root, and a gruel of karanga seeds. The animal food of the Australians includes ants, caterpillars, cicadas and many other insects. A favorite dish, called tuinamba, is composed of pupa cases. The tent-like coverings which the psylla larvæ infesting the eucalyptus make for themselves out of the sweet and glutinous exudations of the leaves, and their own secretions, are dilligently collected and form a dainty which resembles manna and is called paralja. Another delicacy is the flesh of snakes which, with the exception of the liver, is too dry and tasteless to appeal to civilized palates.

The Physician and Public Health.—At all times, from the dawn of history, the highest function of the physician has been to guard those who entrust themselves to his care against the enemies of health, whether these come in the form of licentiousness, dissipation or disease, and for this service, mankind has always been willing to return a good compensation in both money and esteem. No man has ever been held in higher esteem in the world than he who could protect against impediments to health, who could ward off death when disease had broken through the lines of protection, and who could give relief from pain and disquietude. The world has bowed before him and even kings have honored him.—L. F. Flick, in *Interstate Medical Journal.*

"Stigma of Mentality."—A physician of Wisconsin, in sending an advertisement, part of which is reproduced below, writes: "I enclose a serio-comic but seriously intended advertisement that appeared in a local paper. It must be hard for some people to live under the 'stigma of mentality,' but it is indeed gratifying that there is an institution offering relief from this besetting sin."

> This institution was established to supply a public demand for a place where one could go without the stigma of mentality and receive treatment for those conditions requiring Physical correction. Open all the year.
> Physicians in Charge.

Rescuing the Baby.—In Chicago recently a woman adopted a clever expedient for saving her baby from burning when her dwelling caught fire. Awakened by the fire in her burning

Dropping the babe, well bundled in pillows and blankets, to the ground.—Courtesy of *Popular Mechanics.*

home, she quickly bundled her baby in pillows and blankets and dropped it from a second story window to the ground, a distance of nearly 20 feet. The child was uninjured.

Marriages

J. M. HODGES, M.D., to Miss Frances McNeff, both of Detroit, March 20.

WALTER C. BROWNING, M.D., to Miss Anna Garrett, both of Philadelphia, recently.

ARTHUR J. SOMERS, M.D., to Miss Elizabeth Gerding, both of Portal, N. D., March 13.

HENRY B. TRIGG, M.D., Fort Worth, Tex., to Miss Nellie Roscoe Day of Rhome, Tex., March 22.

ERNEST ALBRECHT VICTORS, M.D., to Mrs. Nellie Temple Collier, both of San Francisco, March 17.

ELIOT ROUND CLARK, M.D., Baltimore, to Miss Eleanor Acheson Linton of Washington, Pa., March 21.

HOWARD LEON JAMESON, M.D., Philadelphia, to Miss Eunice Ostrum of East Mauch Chunk, Pa., January 14.

JOHN VANDOREN YOUNG, M.D., to Miss Rose Essie Kirkwood, both of New York City, at Passaic, N. J., March 16.

LEROY EDSON DOOLITTLE, M.D., Newberg, Ore., to Miss Bessie Kent of Duluth, Minn., at Spokane, Wash., March 20.

FREDERICK WILLIAM MAYER, M.D., St. Paul, Minn., to Miss Elsa Gertrude Hofman, at Jersey City, N. J., March 15.

ERNEST GEORGE BUTT, M.D., to Miss Olive May Vandruff, both of Redondo Beach, Cal., at Los Angeles, March 15.

J. RUSSELL VERBRYCKE, JR., M.D., Washington, D. C., to Miss Sophie English Barnes, at Washington, February 28.

Deaths

Edward Fitch Cushing, M.D. *cum laude*, Harvard Medical School, 1888; a member of the Ohio State Medical Association; died in Lakeside Hospital, Cleveland, March 23, ten days after an operation for the relief of intestinal obstruction, aged 48. After his graduation, Dr. Cushing served for three years on the resident staff of the Massachusetts General Hospital, and later was an intern in the Boston Lying-In Hospital, and the New York Maternity. After a year's study abroad he entered practice in Cleveland and became professor of pediatrics in the Medical Department of Western Reserve University, in the reorganization of which he was actively interested. He was a member of the Cleveland Board of Health, and one of the founders of the new Babies Dispensary and Hospital. He also reorganized at his own expense the *Cleveland Medical Journal* Company, of which he was president.

George Abbott, M.D. University of Buffalo, N. Y., 1852; a member of the Medical Society of the State of New York; vice-president and president of the Erie County Medical Society from 1864 to 1866; surgeon of the Fifty-Seventh Infantry N. G. S. N. Y. in 1854; colonel of the Ninety-Eighth New York Volunteer Infantry during the Civil War; died at his home in Hamburg, March 27, aged 84.

Jacob R. Spangler, M.D. Jefferson Medical College, 1874; a member of the Medical Society of the State of Pennsylvania; city physician of York in 1881, later a member of the city board of health, and for two terms a member of the school board; died at his home, March 21, from pneumonia, aged 60. At a special meeting of the York County Medical Society, March 22, action was taken on the death of Dr. Spangler.

James William Dodd Hancock, M.D. Long Island College Hospital, Brooklyn, 1898; of Brooklyn; a member of the Medical Society of the State of New York; assistant surgeon to the ear, nose and throat department of the Williamsburg Hospital and the Brooklyn Eye and Ear Hospital; who was injured in an automobile accident near Jamaica, March 17, died in St. Mary's Hospital, March 22, aged 40.

Silas Springer Tam, M.D. University of Mobile, Alabama, 1894; formerly a member of the American Medical Association; a member of the Medical Association of the State of Alabama; local surgeon for the Mobile, Jackson and Kansas City railroad for several years; died at his home in Mobile, March 18, some weeks after an appendicitis operation, aged 39.

William Edward Hibbard, M.D. New York University, New York City, 1889; a member of the American Medical Association, and American Academy of Ophthalmology and Otolaryngology; formerly of Providence, R. I.; a specialist on diseases of the eye and ear; died in his home in Pasadena, Cal., March 16, from the effects of burns received accidentally, aged 45.

Charles More Stewart, M.D. Trinity Medical College, Toronto, 1897; M.R.C.S., England, 1902; an ear, nose and throat specialist of Toronto; for a time superintendent of the Ottawa General Hospital; while riding in Toronto, March 25, was thrown from his horse in front of a street car and instantly killed, aged 38.

William Clarkson Hastings, M.D. Pulte Medical College Cincinnati, 1888; a member of the American Medical Association; formerly a resident of Portland, Ind., and first superintendent of schools of that place; died at his home in Seattle, Wash., March 18, from heart disease, aged 58.

Isaac Smith Cramer, M.D. College of Physicians and Surgeons, New York City, 1854; a member of the Medical Society of New Jersey; and treasurer of the Hunterdon County Medical Society; and surrogate of the county in 1889; died at his home in Flemington, March 27, from heart disease, aged 77.

Henry Frederick Klenke, M.D. New York University, New York City, 1892; for several years surgeon of the New Haven (Conn.) fire department, and school physician; formerly captain in the Governor's Foot Guards; died in the New Haven Hospital, March 22, from acute nephritis, aged 43.

Frank Darwin Smith, M.D. Missouri Medical College, St. Louis, 1880; a member of the Ohio State Medical Association; a member of the staff of Engleside Hospital, Canton; died at his home in Hartville, O., March 13, from occlusion of the coronary artery due to atheroma, aged 57.

Fred W. Slocum, M.D. Syracuse (N. Y.) University, 1882; a member of the American Medical Association and Syracuse Academy of Medicine; for many years a member of the Syracuse pension examining board; died at his home in Camillus, N. Y., March 16, from nephritis, aged 52.

Sampson A. Ayo, M.D. Tulane University, New Orleans, 1899; a member and one of the councilors of the Louisiana State Medical Society; and a member of the State Board of Health; died at his home in Thibodaux, March 11, from pleuropneumonia, aged 38.

Benjamin Thompson, M.D. Pennsylvania Medical College Gettysburg, 1851; formerly a member of the American Medical Association; local surgeon of the Baltimore and Ohio Railroad at Landenberg, Pa.; died at his home in that place, recently, aged 83.

William Jennings Headrick, M.D. University of Louisville, Ky., 1876; a member of the Louisiana State Medical Society; and local surgeon of the Houston, East and West Texas Railway; died at his home in Logansport, Nov. 2, 1910, from paralysis, aged 63.

Benjamin Dudley Williams, M.D. University of Louisville; Ky., 1884; a member of the American Medical Association; president of the Calhoun County Medical Association; died at his home in Oxford, Ala., March 12, from pneumonia, aged 57.

Lorenia Kemble (license, years of practice, Ind., 1897); for thirty-five years a practitioner of South Bend; died in St. Joseph's Hospital in that city, February 17, eleven days after an operation for carcinoma of the uterus, aged 62.

Charles W. Kinnison, M.D. Starling Medical College, Columbus, O., 1891; of Oak Hill, W. Va.; died suddenly, March 27, from heart disease, on a Chesapeake and Ohio train, while en route to Johns Hopkins Hospital, Baltimore, aged 44.

William Clark Cooper, M.D. Albany (N. Y.) Medical College, 1881; College of Physicians and Surgeons, New York City, 1884; obstetrician to Samaritan Hospital, Troy, N. Y.; died at his home in that city, March 17, aged 52.

George Canning Howard, M.D. Dartmouth Medical School, Hanover, N. H., 1865; formerly of Lawrence, Mass.; a member of the Massachusetts Medical Society; surgeon of volunteers during the Civil War; died at the home of his son in North Attleboro, Mass., March 19, from diabetes.

Nathaniel Leo Niles, M.D. Harvard Medical School, 1905; a member of the Providence, R. I., Medical Society; radiologist to St. Joseph's Hospital, Providence; died at his home in that city, March 23, from carcinoma of the stomach, aged 34.

Fred C. Miller, M.D. Minneapolis College of Physicians and Surgeons, 1899; a member of the Minnesota State Medical Association; health officer of Olivia; died at his home in that city, March 19, from pneumonia, aged 42.

Arnett Phillip Boston, M.D. Tulane University, New Orleans, 1877; a specialist on diseases of the eye, ear, nose and throat; of Alice, Tex.; died at his old home in Beech Grove, Ky., March 16, from cerebral hemorrhage.

Ledyard Verdine Lewis, M.D. Rush Medical College, 1870; of Sun Prairie, Wis.; a member of the American Medical Association; died at his winter home in Redlands, Cal., March 19, from cerebral hemorrhage, aged 65.

Robert W. Cooper, M.D. Michigan College of Medicine and Surgery, Detroit, 1892; formerly of Milford, Mich.; died at his home in Kingston, Mich., March 11, from brain abscess following influenza, aged 47.

Edward R. Aiken, M.D. Albany (N. Y.) Medical College, 1868; for more than thirty years a practitioner of Perry, Ia.; died at the home of his son in Aiken, Neb., March 18, from arteriosclerosis, aged 65.

Arthur Henry Bigg, M.D. Detroit (Mich.) Medical College, 1881; a member of the American Medical Association; and Detroit Academy of Medicine; died at his home in Detroit, March 17, aged 69.

Elbert Goodman Van Orsdell, M.D. Albany (N. Y.) Medical College, 1902; a member of the Medical Society of the State of New York; died at his home in Brooklyn, March 25, from pneumonia, aged 40.

Gilbert H. Tollington, M.D. College of Physicians and Surgeons, Chicago, 1885; a specialist on diseases of the eye; died at his home in Clear Water, Minn., February 12, from chronic nephritis, aged 48.

John Holin, M.D. College of Physicians and Surgeons, Keokuk, Ia., 1879; a member of the American Medical Association; died at his home in Cowden, Ill., March 18, from pneumonia, aged 65.

Mozark Jenkins, M.D. University of Vermont, Burlington, 1884; a member of the Medical Society of New Jersey; died at his home in Trenton, March 19, from laryngitis, aged 55.

Christopher William Flock, M.D. Victoria College, Coburg, Ont., 1856; for twenty years a practitioner of Nebraska; died at the home of his son in Emerson, March 11, aged 82.

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Philander Tabor (license, Iowa, years of practice, 1887); for fifty-four years a resident of Independence, Ia.; died at the home of his son in tnat place, March 21, aged 93.

Willard Warren Ruggles, M.D. New York Homeopathic Medical College, New York City, 1908; died at his home in Brewster, N. Y., March 7, from typhoid fever, aged 31.

George Walker Bull, M.D. Bellevue Hospital Medical College, 1873; an ophthalmologist; formerly a resident of New York City; died in Paris, France, January 1.

Joseph Hartman Armitage, M.D. McGill University, Montreal, 1886; died at his home in Waterloo, Ont., January 18, from fracture of the spine, aged 50.

Lewis K. Esrey, M.D. Hahnemann Medical College, Philadelphia, 1888; died in his office in Philadelphia, March 24, from heart disease, agen 68.

William John Hare, M.D. Bellevue Hospital Medical College, 1885; died suddenly at his home in Detroit, March 23, from heart disease, aged 52.

Alexander C. Taylor, M.D. University of Pennsylvania, Philadelphia, 1850; died at his home in Vineland, N. J., March 22, aged 86.

William T. Risque, M.D. Kentucky School of Medicine, Louisville, 1856; died at his home in Paynes Depot, Ky., March 24, aged 83.

"The Propaganda for Reform"

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION

Are Retail Pharmacists Waking Up?

While it is probably true that the physician's insufficient knowledge of drugs and of their use has been the chief cause for the growth of the proprietary specialty business, the pharmacist's inability to compound physicians' prescriptions properly has also been a potent cause for the prescribing of ready-made mixtures. Rancid or poorly made cod-liver oil emulsions have persuaded many a physician to prescribe Scott's Emulsion or some similar nostrum. Gritty ointments and turbid eye-drops have induced specialists to use ready-made preparations or to do their own dispensing. A program of a meeting of pharmacists—the Philadelphia Branch of the American Pharmaceutical Association—however, gives hopes that pharmacists are making serious efforts to improve professionally.

While the programs of meetings of retail pharmacists are often devoted to price protection, window trimming and the proper handling of cigars (live commercial topics, it is true), the meeting of the Philadelphia branch was devoted to a discussion of sterilization and its need as applied to pharmaceutical compounding. It also appears that the branch has a special committee whose function it is to arouse the interest of pharmacists throughout the country to the necessity of devising reliable methods for the preservation of galenicals, and also to the need of establishing a time limit for such pharmaceutical products as are known to deteriorate with age. Both of these subjects—the need in many cases of sterilizing pharmaceutical preparations and the necessity of giving proper attention to keeping qualities—are most important ones and their consideration cannot but be a benefit to professional pharmacists.

Therapeutically Suggestive Names for Medicines

While it is desirable that the name of a medicine should convey an idea of its composition, the full chemical names of many new remedies are so long that their adoption is out of the question. It would not be practicable, for instance, to use the chemical name for Ehrlich's new arsenic preparation, 3-diamino-4-dihydroxy-1-arseno-benzene hydrochlorid. In the past, however, there has been a tendency to adopt meaningless or cryptic names for medicines, such as Alypin, Orphol, Soamin, Veronal, or worse still, names which are therapeutically suggestive, such as Bronchiline, Genitone, Laxaphen, Migrainin, Nephritin, Neurosine, Ovaritone, Trigemin and Uriseptin. More recently, largely as a result of the influence of the Council on Pharmacy and Chemistry, manufacturers have adopted names which are more satisfactory, or, at least, that are a vast improvement over those used in the past. Thus, among the articles more recently passed by the Council are, Arsenoferratin, an organic compound of iron and arsenic; Carbosant, a carbonate of santalol; Digipuratum, a purified digitalis extract; Guaiacodein, a compound of codein and guaiacol; Tannismuth, a tannate of bismuth. These names are brief and to a certain extent descriptive of their composition. There is no basis for the excuse often given by exploiters of proprietary medicines for therapeutically suggestive names, namely, that it is impossible to coin names which are descriptive and yet sufficiently short and simple. Such disease-suggesting names as Antitussin, Pertussin, Migrainin, Somnos or Calmine should not be tolerated.

Similarity Between Nitrite and Acetanilid Poisoning

A physician recently wrote that a preparation of liquor sodii phosphatus compositus, when administered to a patient, produced symptoms that simulated acetanilid poisoning. The sample sent in by the physician was examined by the Association chemists who reported:

"Tests which would detect minute quantities of acetanilid failed to reveal the slightest trace of this substance. The odor of the solution was distinctly characteristic of oxids of nitrogen such as are produced in the decomposition of nitrates or nitrites. The presence of a small quantity of nitrate—a regular constituent of this preparation—was detected and also the presence of considerable quantities of a nitrite. Quantitative determinations showed the presence of an amount of nitrite equivalent to 2.9 per cent. sodium nitrite. It seems improbable that a nitrate used in the preparation of this mixture had decomposed to form a nitrite; it is more likely that a nitrite was used inadvertently. If this preparation was given in doses of 8 c.c. (2 fluidrams)—the U. S. P. dose for liquor sodii phosphatus compositus—the patient received 0.2331 gm. or three and one-half times the U. S. P. dose of sodium nitrite."

This note is published to point out the similarity between acetanilid and nitrite poisoning.

Correspondence

Postgraduate Surgical Clinics in America

To the Editor:—The increasing importance of surgery and the increase in the number of good surgeons in America is especially evident to one who has traveled extensively over this country and has had opportunity to observe closely and for long periods of time the work of America's surgeons. To a physician, nothing is more interesting than to visit the clinics of other physicians and this applies also to surgeons.

The custom is almost as old as medicine itself, and for many years numbers of American physicians have been going to Europe to visit the famous clinics for helpful suggestions and the pleasure of the trip. It is evident that the American surgical clinics are now finding a distinct place of their own. I recently returned from a two years' trip to some of the best-known clinics, where I gave time, energy and thought to the study of surgical diagnosis, technic, complications and after-treatment and others may be interested in a brief account of the opportunities for surgical study in America for graduate physicians, and description of places which seemed to be especially popular.

A constantly growing number of physicians and surgeons from all parts of the country are visiting the Mayo clinics at Rochester, Minn., the clinics of Johns Hopkins, the surgical clinic of the German Hospital in Philadelphia (Deaver) and the clinics of Murphy and Ochsner in Chicago. At these places I have seen from 25 to 100 men, many of whom have national reputations, enjoying the splendid clinics and the gracious hospitality extended by the surgeons to visitors. The chiefs of these clinics realize what a compliment it is for men to come from all over the continent to learn from

them something definite and practical in the treatment of the sick. At some of these clinics there is a large comfortable room for the visitors, with a book of registry and books of reference; at the Rochester clinic there is a surgical club which meets in the afternoon and discusses the operations which have been performed in the morning. At all of these places one can find comfortable living accommodations.

At none of these clinics did I find the surgeons looking for money from their visitors and intimating that the visitors take a postgraduate course; no matter how long one stays, be it a day or a year, he is always welcome without price. If these leaders have been able to show a physician anything that will make him a more valuable man in his community, they are glad indeed. In this selfish and grasping age, such splendid courtesy and generosity are most commendable and stimulating, and there is no question that these clinics stand among the great achievements of our present civilization.

For those especially interested in gynecology, I found the clinics of Kelly at Baltimore, Bovee at Washington, Clark, Beyea and Baldy in Philadelphia, and Coe in New York, especially helpful. The surgical and gynecologic clinics of Boston are good and deserve a larger attendance. For practical work and the opportunity to do something in genito-urinary work I know of no place like Young's clinic at Baltimore.

The following up of the treatment of surgical cases is one of the things that a great many men want, and if a physician speaks to the operating surgeon and tells him that he wants to follow up the cases, the surgeon usually is only too glad to help and will introduce the visitor to the house officer. Arrangements can then be made to make the rounds with the house surgeon at an early hour in the morning.

Such has been my experience and taking this trip after five years of practical work, I found it most helpful and at the same time enjoyable. There are of course many other clinics where excellent work is done, but the clinics named are those that I, as well as many others, found especially stimulating.

F. W. HORNBROOK, M.D., Boston, Mass.

Nasal Suction

To the Editor:—The value of negative pressure by suction in the treatment of diseases of the nasal sinuses has appealed to me for years and it has been my practice to insist that "secretions be aspirated and not blown" out of the nose following operations. When the vacuum pumps were first introduced I tried to use them, but without success until the past few weeks, as it was difficult to close the postnasal space. One day it occurred to me to have the patient take some water in the mouth and swallow it at command. This absolutely closed the space for a time and a little practice would keep it under control. This method so far has proved itself practical and is far ahead of all the other methods that I have seen or heard of. The effect is apt to be startling when it is first applied and it is well to advise caution regarding the water pressure as it is liable to produce dizziness. It is necessary, of course, for the patient to breathe through the mouth after the palate is raised in order to keep it in position. The technic otherwise is the same as is generally used.

OTIS ORENDORFF, M.D., Canon City, Colo.

Cacodylate of Sodium in Coronary Disease

To the Editor:—Allow me to suggest the use of sodium cacodylate in coronary disease with resulting myocardial degeneration and its usual train of symptoms, such as: general edema, hypertrophied liver, pulmonary engorgement and a low hemoglobin content.

Its use in a case in which there was no history of any specific lesion was prompt and gratifying. An ampoule of the drug, containing 3 grains, was administered on alternate days, each dose being preceded by a small dose of cocain, to overcome the smarting which follows the injection of the drug under the skin. Salines sufficient to obtain a few watery stools were given each morning.

H. F. GILLETTE, M.D., Cuba, N. Y.

Correction in Analgesic Formula

To the Editor:—My attention has just been called to the analgesic formula in my contribution to THE JOURNAL, March 25, 1911, p. 863, which is so manifestly an error that I trust no one has adopted the quantities as given. The error must have occurred in dictation and subsequent transcription. The formula as published is dangerously meaningless. I intended it to read as follows:

℞	gm. or c.c.
Morphin hydrochlorid	0.01
Novocain	0.04
or	
Scopolamin	0.0015
Normal salt solution	1

CHARLES A. L. REED, Cincinnati.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

HUBBES' NASCENT MERCURY TREATMENT OF SYPHILIS

To the Editor:—In THE JOURNAL, March 25, 1911, p. 934, reference is made to an article by Hubbes. Who is Hubbes? Can you give anything further on his technic of treatment of syphilis with nascent mercury? F. G. CARLSON, Thornton, Iowa.

ANSWER.—Dr. Fritz Hubbes was formerly assistant at the dermatologic clinic at the University of Graz, Austria. We can add nothing to the description of the technic given in our abstract.

THE AUTOMOBILE SPEED QUESTION

To the Editor:—I wish you would advise me if there is a law permitting physicians, on accident or emergency calls, to exceed the speed limits of cities, and, if so, is there any official emblem designating such favor to them? D. Y.

ANSWER.—Some information on this subject will be found on automobile pages XXI and XXII of this issue.

It is a common practice for physicians to place insignia on their automobiles, front and rear. They are thus recognized by policemen and often favored in the matter of right of way. These signs usually consist of a device in which the red Geneva Cross is prominent; but, in deference to the wishes of the American Red Cross, there is not a little sentiment in favor of leaving the red Geneva Cross for the use of that organization. Congress has passed an act to limit its use.

As a substitute it has been proposed to use the green St. Andrew's Cross. Something on this subject will be found in the department of Queries and Minor Notes, in THE JOURNAL of Aug. 27, 1910, page 795, and one firm, which supplies such insignia for automobiles, is prepared to supply the St. Andrew's Cross in answer to this suggestion.

DENATURED ALCOHOL

To the Editor:—1. What is denatured alcohol? 2. Would it be safe for external use, as bathing, etc.?
G. D. CARNES, South Haven, Mich.

ANSWER.—1. Denatured alcohol is alcohol to which have been added certain materials which destroy its character as a beverage and render it unfit for medicinal purposes but which do not prevent its employment for industrial purposes. Denatured alcohol is exempt from the internal revenue tax laid on ordinary alcohol and is sometimes called tax-free alcohol. Under authority of an act of Congress, passed in 1907, the commissioner of internal revenue has prescribed that for general purposes alcohol known as completely denatured must be prepared by either of the following formulas: (A) To every 100 gallons ethyl-alcohol (of not less than 180 degrees proof) there shall be added ten gallons of approved methyl-alcohol and one-half gallon of approved benzin. (B) To every 100 gallons of ethyl-alcohol (of not less than 180 degrees proof) there shall be added two gallons of approved methyl-alcohol and one-half gallon of approved pyridin bases. The methyl-alcohol, benzin and pyridin intended for use as denaturants must be submitted for chemical test and must conform to certain specifications. In cases in which the above-named substances would render the alcohol unfit for certain industrial uses special denaturants have been authorized.

2. The safety of denatured alcohol for external use depends on the denaturing agent. If methyl-alcohol (wood spirits) is used for the denaturing, it may be absorbed to such an extent as to produce poisoning, such as blindness, etc.

ODOR FROM ASPARAGUS

To the Editor:—The statement made in reply to a correspondent, March 25, p. 916, that the odor of urine after asparagus is eaten is due to asparagin, needs revision. The odor is usually ascribed to methyl mercaptan because of Nencki's investigations on the subject (*Arch. exp. Path. u. Pharmakol.*, xxviii.) Asparagin is not odoriferous and its properties are well known.

LAFAYETTE B. MENDEL, New Haven, Conn.

To the Editor:—I noticed in THE JOURNAL, March 25, 1911, page 916, a query on the cause of odor from asparagus. May I be permitted to give a few details? The nauseous odor from urine after the ingestion of asparagus is due directly, as you say, to asparagin; this, however, is decomposed in the intestine during digestion into a volatile sulphur compound—methyl mercaptan, H_3S [HS—ED.] plus the methyl radical. The odor may last for from twelve to twenty hours. The action of asparagus is diuretic, but the use of asparagus is forbidden when a purin-free diet is indicated in gout and allied diseases, epilepsy, renal or vascular disorders. It contains 0.021 per cent. purins, or 1½ grains to the pound.

WILLIAM B. CONYNGHAM, New York.

ANALYSIS OF NOITOL—ORCIN REACTION—TEST FOR LEAD IN BLOOD

To the Editor:—Please give me answers to the following questions:

1. Has the Council on Pharmacy and Chemistry ever made an analysis of the solution named "Noitol," made by the Wheeler Chemical Works, Chicago?
2. What is the "orcin reaction for pentoses"?
3. Is there a test for lead in the blood of human being, either by microscopic or any blood reaction, or chemical test? C. M. B.

ANSWER.—1. "Noitol" was exposed in THE JOURNAL, May 21, 1910.

2. Orcin 1 gm. and 20 drops of a 10 per cent. solution of ferric chlorid are dissolved in 500 c.c. of a 30 per cent. solution of hydrochloric acid. Of this reagent 4 or 5 c.c. are heated to boiling, then removed from the flame and the suspicious urine added drop by drop, but not exceeding 1 c.c. If pentose be present a fine green color appears at once, or very soon. The green pigment can be extracted with amyl alcohol and, on spectroscopic examination, it gives rise to a well-defined band of absorption in the red portion of the spectrum near the yellow border.

3. In lead poisoning and in some other conditions, such as pernicious anemia, some of the red blood-cells when stained with a basic stain (gentian-violet or methylene-blue) exhibit minute granules. These "stippled" cells occur in great number in lead poisoning. In other conditions several fields must be searched in order to find one. In some cases of lead poisoning, however, they cannot be found in the time at the disposal of the ordinary clinical worker. They are especially numerous in patients with gastro-intestinal lesions, while in cases of peripheral neuritis due to lead their discovery may be very difficult.

POSTGRADUATE STUDY IN EUROPE

To the Editor:—I intend to take up postgraduate work next summer in some European center. Please give me information in regard to teachers, courses, cost, conditions of living, etc. D. B. G.

ANSWER.—As this inquiry is representative of many which are received in this office at this time of the year, we answer it in some detail. The space which we give to the subject does not mean that we consider foreign opportunities for postgraduate study to be preferred in every case, or even usually, to those in this country. In many subjects the advantages afforded by American clinics are more valuable and far less expensive. In gynecology and general surgery, for instance, the opportunities for postgraduate work in the United States are equal if not superior to those to be obtained abroad. If the physician goes abroad with only a hazy idea of what he wishes to obtain, and with only an imperfect knowledge of the language of the country, or none at all, he is likely to bring back little of practical value except the prestige of having studied abroad—which, indeed, may have been the chief object in many cases. The value of what a physician brings back from a foreign tour varies directly with what he takes abroad with him.

If the physician goes to the continent it is most important that he have a knowledge of French or German, according as he intends to study in Paris or Berlin or Vienna. This knowledge should be acquired as far as possible beforehand. The acquisition of a medical vocabulary in any foreign language can be considerably facilitated by the use of one of the medical manuals in that language, but the vocabulary learned by the eye alone is not sufficient; it is essential that the ear should be familiar with the pronunciation, since, while medical terms are often spelled the same way or similarly in several languages, the pronunciation differs in each from all the others, and hence is sure to be confusing to one who is accustomed to the language only on the printed page.

For the names of several excellent manuals which will be found useful to the physician seeking to familiarize himself with the medical vocabulary of a foreign tongue, we refer the reader to the answer to L. R. C., p. 1058, this issue

Some of the smaller university cities abroad offer excellent opportunities for laboratory work, but for clinical instruction, which is what the American physician going abroad for postgraduate work usually desires, the best opportunities are found in the larger medical centers, and Vienna, Munich, Berlin, Paris and London are the cities usually selected. Information in regard to postgraduate medical courses in all countries is, according to recent plans, to be accumulated by the Medical Information Bureau of the Kaiserin Friedrich-Haus, Berlin, the headquarters of the system of postgraduate instruction throughout the empire (mentioned below), for free distribution to medical men in all parts of the world. The foreign governments are anxious to facilitate postgraduate work by outsiders, and are doing everything in their power to make it easy for those from abroad to get all the necessary information in regard to courses, libraries, lodgings, expense, etc. For this purpose scientific information bureaus have been opened in Paris and Berlin, as mentioned below, where they have attendants speaking various languages. These bureaus are listed in the telephone directory and are proving of great assistance to the newcomers. Vienna in particular has long provided exceptionally well-arranged facilities for brief postgraduate courses, some in English, and many arranged with special reference to the needs of American visitors.

LONDON

The instruction abroad, best suited for the physician who does not understand French or German, is to be found in the British Isles. In Great Britain and Ireland facilities for graduate study are to be found in London, Cambridge, Edinburgh, Glasgow and Dublin. The London Postgraduate Association, Hanover Square, London, W., is an organization which has entered into arrangements with the principal medical schools and hospitals in London so that it is able to issue a ticket which admits the holder to all the clinical instruction provided in these institutions. The fee for three months' instruction is 10 guineas (about $52.50). Full particulars regarding this association can be obtained from the secretary at Examination Hall, Victoria Embankment, London, W. C.

In addition, postgraduate work to which foreigners are admitted is given by the following schools: The Medical Graduate College and Policlinic, 22 Chenies Street, London, W. C., offers lectures, with practical demonstrations on chemical medicine and surgery in general, skin diseases, and diseases of the eyes, throat, nose and ears, to which the yearly subscription for admittance is 1 guinea (about $5.25), and practical courses of instruction in a large number of special subjects, for which an additional fee is charged. Further particulars can be obtained from the secretary. The North East London Post-Graduate College, the Prince of Wales General Hospital, Tottenham, N., offers a hospital student's ticket which entitles the holder to attend courses on clinical medicine and surgery in general, costing 5 guineas (about $26.25), while the fee for each of the special courses, such as diseases of the nose, throat and ear, skin diseases, roentgenology, medical electrology, is 1 guinea (about $5.25). Further particulars may be obtained from the dean of the college. The West London Post-Graduate College, West London Hospital, Hammersmith, W., gives courses of instruction in general clinical medicine and surgery and special subjects. The dean of the college will furnish particulars as to terms, etc. The fee for each course offered by the London School of Tropical Medicine, Connaught Road, Albert Docks, is 16 guineas (about $84). Further particulars may be obtained from P. J. Michelli, Esq., C.M.G., Seamen's Hospital, Greenwich, S.-E. In the London School of Clinical Medicine, Seamen's Hospital, Greenwich, S.-E., courses of instruction are given in clinical medicine and surgery and special subjects. The dean will supply further particulars if desired.

Among the London hospitals where postgraduate instruction may be obtained are the following: For general medicine: St. Bartholomew's Hospital, West Smithfield, E. C.; St. Thomas' Hospital, Albert Embankment, Westminster Bridge, S. E.; University College Hospital, University and Gower Streets, W. C., and London Hospital, Mile End, E. For pediatrics: the Hospital for Sick Children, Great Ormond Street, Bloomsbury, W. C. For ear, nose and throat diseases: the Hospital for Throat Diseases, Golden Square, W. For ophthalmic work: the Royal London Ophthalmic Hospital (formerly Moorfield's Eye Hospital), City Road, E. C. For nervous diseases: the National Hospital for the Paralyzed and Epileptic, Queen Square, Bloomsbury, W. C.

PARIS

According to E. St. Jacques (*Med. Rec.*, Aug. 14, 1909), clinical facilities are greater in France than in Germany, and Paris excels in dermatologic, neurologic and genito-urinary work.

In Paris there is no special official organization for medical postgraduate instruction, but any physician, foreign as well as French, may, without the payment of any fee, follow any theoretical course given in the Faculté de médecine or any of the clinical courses held in the hospitals or clinics. The physician should first introduce himself at the offices of the Assistance Publique, 3 Avenue Victoria. He will receive gratuitously a *carte d'entrée des*

hôpitaux, which carries a formal request to the various directors of hospitals, etc., to assist the visitor with information and facilities; it also contains a list of all the hospitals under the jurisdiction of the Assistance Publique. In order to be admitted to the clinical lectures, ward visits and examination of patients, the physician has only to present his card to the concierge of the hospital and to ask by name for the physician or surgeon whom he wishes to see.

A physician who desires to take a practical course and to have the privilege of the library of the Faculté de médecine pays a matriculation fee of about $6 (30 francs), and in addition a fee for each practical course taken up, which is on the average about $10 (50 francs).

In various hospitals, clinics and laboratories there are *cours de perfectionnement* organized at various times of the year, especially during vacation. These are announced by placards posted in the buildings of the Faculté de médecine and the various hospitals and by notices in the medical journals. The newcomer is advised to consult the last few numbers of some such periodical as the *Bulletin médical* or the *Presse médicale* for notices of non-official courses (that is, those not given under the auspices of the Faculté de médecine).

The fees are variable, but rarely exceed $10 or $20. Moreover, there are several associations for complementary medical instruction which organize similar courses. Such courses are organized twice a year at No. 18 rue du Luxembourg, the winter series in November and December, the summer series in May and June. Vacation courses comprising the principal specialties are also organized in September and October. The price is about $4 (20 francs) a course.

The course in bacteriology at the Pasteur Institute is three or four months long, and therefore is not given more than twice a year. Names must be sent in to Dr. Roux or his assistants some time in advance.

A free information bureau for physicians and others, officially known as the Bureau de Renseignements Scientifiques, is maintained at the Sorbonne. It is open all the year around from 10 to 12 and from 2 to 5, with attendants able to speak German, English, Russian and Spanish, and catalogued information of all subjects of interest to persons intending to pursue scientific study.

"An English Handbook to the Paris Medical School," by A. A. Warden, published by P. Blakiston's Sons & Co., 1012 Walnut Street, Philadelphia, price 50 cents, contains a map of the Quartier Latin and much useful information in regard to the schools and courses.

The cost of living in Paris naturally varies according to the location and accommodations required. The physician who comes to Paris to study will find it to his advantage to live in the Latin Quarter, which is the seat of the Faculté de médecine and of the Collège de France and is in proximity to many important hospitals and clinics. Room and board in private families may be had for a price varying from $30 to $50 a month (150 to 250 francs). Room without board costs on the average from $10 to $12 a month.

BERLIN

Many American physicians go to Germany or Austria for postgraduate study. Especial advantages are found there for laboratory work and research, and instruction is said to be better organized, especially in Vienna. The two most important centers of medical instruction in German-speaking countries, of course, are Berlin and Vienna.

Medical courses at Berlin are divided into: (1) the regular university courses, which are intended for the undergraduate students; (2) vacation courses given by the university instructors during March and October, and (3) monthly courses by private instructors, which are given the year around. These are mostly policlinic or dispensary courses and correspond closely to the instruction given in graduate schools in the United States.

Regular student courses at the University of Berlin are often designed more for undergraduate than for postgraduate work. An occasional visit to these courses is welcomed without formality. To attend regularly one must sometimes matriculate. The university work is divided into a winter and a summer semester, the winter semester lasting from October 15 to March 15 and the summer semester from April 15 to August 15. The time for matriculation is comprised in the two weeks preceding the opening of the semester and the first two weeks of the semester. The matriculation fee is 18 marks; diploma and passport must be shown. Vacation courses are given twice a year (March and October) during the university holidays. These courses are for graduates in medicine and can be very highly recommended. They are, however, sometimes overcrowded. Most of these courses begin on the first day or during the first week of the month and last for four weeks. Assistantships or so-called "voluntary" assistantships are often obtainable in out-patient departments and inside the hospitals. The requirements of such positions may best be obtained from the older men in the Anglo-American Medical Association or members of its orientation committee.

As mentioned in the Berlin Letter (THE JOURNAL, March 4, 1911, p. 682), a double fee for the summer semester of 1911 has been imposed on foreigners attending lectures or taking laboratory work. The increase amounts to 10 marks ($2.50) for students in medicine and the natural sciences.

The Anglo-American Medical Association of Berlin was formed to promote the interests of British and American physicians studying in that city. The headquarters of the association are at Friedrichstrasse 105b, where an information clerk is in attendance from 9 to 10 a. m. The president is Dr. Bruggemann, Berlin W., Barbarossa Str. 33. The membership fee is 10 marks (about $2.50) a year. The year-book of the association will be sent by the secretary, W. J. Griffin, on receipt of 5 cents in foreign exchange stamp coupons. It contains courses most frequently attended by Americans, but does not pretend to be a complete list of all courses given in Berlin.

For courses not announced therein the newcomer should not fail to consult the following publications: (1) Verzeichnis der Vorlesungen (list of university courses), price 60 pfgs; (2) Ferien-Kurse für praktische Aerzte (vacation list); (3) Schacht, Ratgeber und Wegweiser für Teilnehmer an ärztlichen Fortbildungskursen, price 1 mark; (4) Verzeichnis der Monatskurse, gratis; (5) Kurse für praktische Aerzte, gratis; (6) Verein für Aerzte-Kurse, gratis. Nos. 1 and 2 are the most important and will be sent to the United States on receipt of 25 cents in foreign exchange stamp coupons. They would probably be supplied either by the Anglo-American Medical Association or by the information bureau, similar to that mentioned at the Sorbonne, which is maintained at the Kaiserin Friedrich-Haus, Luisenplatz 2-4.

Postgraduate courses on a large variety of subjects are given under the auspices of the Bureau des Zentralkomitees für das ärztliche Fortbildungswesen in Preussen, Berlin N.-W. 6, Luisenplatz 2-4, Kaiserin Friedrich-Haus für das ärztliche Fortbildungswesen. The subjects offered include the following: pathologic anatomy, internal medicine, surgery, ophthalmology, the clinical and practical application of bacteriology, diseases of women, obstetrics, industrial hygiene, diseases of the nose and throat, urinary diseases and gonorrhea, dermatology and syphilis, diseases of children, including the nutrition of normal and diseased infants, clinical chemistry, care of the sick, gastric and intestinal diseases, diseases of the ear, surgical and mechanical orthopedics, the latest applications of water, light, heat and electricity to therapeutics, roentgenology, etc.

The recently opened Amerika-Institut, under the directorship of Prof. Hugo Münsterberg, in the Royal Library Building, Universitätstrasse 6, Berlin VII, seeks to assist Americans who wish to come into contact with German institutions, scholars, libraries, archives, laboratories, museums, hospitals, academies, etc.

It is imperative that American citizens bring with them passports. They must register in the consulate when arriving in Berlin. If possible it is best to reach Berlin about the twentieth of the month. According to information furnished by the Anglo-American Medical Association, at least one week should be spent in personal examination of the opportunities for study and in getting settled before beginning work.

DÜSSELDORF

The Academy for Practical Medicine, Düsseldorf, offers courses, open to foreign physicians, in pathologic anatomy and experimental therapy, and clinical courses in surgery, gynecology, obstetrics and pediatrics. The only expense is a registration fee of about $1.25.

VIENNA

Vienna presents many advantages from the medical student's point of view, one of which is the great amount and variety of the clinical material, since patients come to Vienna from territory within a very large radius. Another advantage is the centralization of facilities for instruction, which makes it possible for the student to economize his time.

There are ten large public hospitals, the chief of which, the Allgemeines Krankenhaus, comprises three clinics each of surgery and medicine, two clinics each for gynecology, dermatology and syphilis, ophthalmology, mental and nervous diseases, and one each for otology, rhino-laryngology and pediatrics. Some clinical teachers not only speak English fluently but give lectures in English in special classes. Within the last few years a magnificent new hospital has been erected a few hundred feet away from the old Allgemeines Krankenhaus, which is to be pulled down. It will contain only clinical wards for clinical teaching by ordinary professors. It is lavishly equipped in the most modern and scientific manner and will, when finished, contain 2,600 beds.

Besides this general hospital there are the Wiedner Hospital, the Rudolph Hospital and the Poliklinik, connected with the medical department of the university, in which clinical lectures are

given also by professors during the semesters. The winter semester lasts from October till March 31, the summer semester from May 15 to July 15. The fees for clinical semester lectures are low, about $6 being the maximum, while special lectures are more expensive. A very good opportunity for anatomic and dissecting work is offered in the Anatomisches Institut, for pathologic anatomy and bacteriology in the Pathologisch-Anatomisches Institut. In these official institutes the fees for working and material come to something like $10 to $15 per term of eight weeks. There is also a well-equipped institute for the study of physiology, and one for histology of the nerves. A modern institute for experimental pathology and therapeutic research was opened two years ago. All the institutions mentioned above are in the same quarter or district of Vienna, called Alsergrund, and are conveniently near each other.

Those who wish to spend considerable time in the wards do not find it difficult to obtain the position of *Hospitant* in the wards, where they have the same rights as ordinary hospital officers, but not their duties; they, of course, receive no pay. The clinics for dermatology, practical medicine, syphilis, ophthalmology and otology especially are much frequented by American *Hospitants*.

The following are specimen charges in classes arranged by privat-docents and professors: Diagnostic classes for internal diseases, $10 for six weeks; hematology, $25, four to six weeks; surgery of the genito-urinary system, $20, four weeks; surgery of the ear, $15 to $20, six to eight weeks. In classes on rhinology the fees are between $20 and $40, including operations on patients. Surgical practice on the cadaver is obtainable as a special course. Urbantschitsch's classes on otology are much frequented by English-speaking physicians, and Finger's English classes on dermatology are an old-established institution. Furthermore, it is possible to get up a special class for nearly any branch of medicine if the lecturer is guaranteed a minimum fee varying between $100 and $150 for the whole class, so that there is a vast opportunity for both practical and theoretical teaching at a low cost to the individual members of the class.

The following is reported by an observer as a specimen day: From 8 to 10 a. m., class at von Noorden's clinic, a case of syringomyelia, two cases of multiple sclerosis; 10 a. m. to 12 m., Hochenegg's clinic, removal of a cancer of the breast, operation on a pancreatic cyst; 12 m. to 1 p. m., at Weichselbaum's pathologic theater, twenty-five fresh specimens, obtained during the morning at the necropsies, cancer of the penis, diphtheritic inflammation of the larynx, a volvulus, an anencephalus, a liver with fatty degeneration from phosphorus poisoning, typhoid intestines, leukemic bone-marrow, and several other interesting specimens; 1 to 2 p. m., a Cesarean section in Schauta's clinic; 4 to 5 p. m., a retinoscopy class in the second ophthalmic clinic, where cases of optic neuritis, iritis and keratitis specifica, glaucoma and a case of papilledema were shown; 5 to 6 p. m., work at a chemical laboratory; 6 to 7 p. m., an operative class on the ear of the cadaver.

There are two well-equipped public libraries. One is the large reading-room (Lesezimmer) of the Universitäts-Bibliothek, comprising about 400,000 books, and the other is the Aerztliches Lesezimmer in the hospital, with about 22,000 books and periodicals. English medical works are provided in abundance and access to these libraries is easily obtained.

The American Medical Association of Vienna, Schlösselgasse 28, Vienna VIII, secretary, Dr. M. W. Jacobs, also will be glad to assist any newcomer and to give information on study or other subjects.

A handbook in German, English and French of the postgraduate medical work under the patronage of the free organization for medical courses at the University of Vienna (Aerztliche Fortbildungskurse der freien Organisation für die medizinischen Kurse an der k.k. Universität Wien) is published by Urban & Schwarzenberg 1, Maximilianstrasse 4, Vienna, and supplied gratis on application.

A bureau of information for medical courses is maintained in the Allgemeines Krankenhaus, First Court, head offices (Direktion), first floor, room 14, where information can be obtained on personal or written application.

In the Alsergrund, the district which corresponds to the Latin Quarter in Paris, a conveniently situated room may be had for $8 or $12 a month. Board may be obtained for about $30 or $40 a month, or even less; $10 or $12 a week may be made to cover the expenses of decent living. There are low-priced private dining-halls for medical students and more expensive boarding-houses on the English plan. The following streets are suitable and convenient: Spitalgasse, Alserstrasse, Lazarethgasse, Pelikangasse, Kochgasse, Skodagasse, Schlösselgasse, Währingerstrasse and Garnisonsgasse.

TRAVEL NOTES OF INTEREST TO PROSPECTIVE STUDENTS ABROAD

The following letters and articles, published in THE JOURNAL and elsewhere, may be found of interest by the physician who is planning a trip abroad:

Hall, J. N.: Postgraduate Work in Vienna, THE JOURNAL, Dec. 7, 1907, p. 1932.
Osler, William: Vienna After Thirty-Four Years, THE JOURNAL, May 9, 1908, p. 1523; Impressions of Paris, *ibid*, Feb. 27, 1909, p. 701; March 6, 1909, p. 771.
Davis, A. Edward: Postgraduate Medical Instruction in Vienna, *Jour. Ophth. and Oto-Laryngol.*, April, 1909, p. 127.
Mannheimer, G.: Postgraduate Study in Europe, *Med. Rec.*, May 8, 1909.
Dewey, Richard: Psychiatry in Munich, THE JOURNAL, Jan. 1, 1910, p. 65.
Macy, Mary S.: Postgraduate Medical Work for Women in Europe, *Woman's Med. Jour.*, March, 1910, p. 59.
Kast, L.: The International Committee for Postgraduate Medical Education, *Post-Graduate*, June, 1910, p. 632.
Slocum, George: The American Medical Student in Vienna, *Phys. and Surg.*, July, 1910, p. 262.
Richardson, F. H.: Postgraduate Study of Pediatrics in Vienna, THE JOURNAL, Oct. 8, 1910, p. 1303.

While the Continental Anglo-American Medical Society is not organized for purposes of instruction, the American physician traveling on the Continent may find it useful to have the list of its members, as it will give him the names of English-speaking confrères in continental Europe, and northern Africa as well. The honorary secretary and treasurer is Dr. Charles G. Jarvis, 81 Boulevard Malesherbes, Paris.

CONVERSATIONAL AIDS IN FOREIGN LANGUAGES

To the Editor:—Please give me information in regard to books that will aid practitioners in obtaining a working knowledge of German and French. L. R. C.

ANSWER.—One of the most rapid means of acquiring a foreign language is by reading articles in that language, comparing them meanwhile, sentence by sentence, with a literal translation. "Medical German," by Deutsch, price $1.75, contains conversations with patients in German and English. A volume of German-English medical dialogues, with dictionary and grammar, by Robert Lewin, is published by Dr. Werner Klinkhardt, Leipsic.

Other aids to conversations in French and German are P. Blaschke's English-German "Medizinisches Konversationsbuch," published by the Verlag von Walther Rothschild, Berlin. This is sold in this country for $1.20. Another work of this kind, "Englisch für Mediziner," about the same price, is published by the Verlag von J. A. Barth, Leipsic. But the most valuable work of the kind, perhaps, is the "Medical Vademecum in English and German" by B. Lewis, 1910, which is sold by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, for $5. This was reviewed recently in THE JOURNAL (July 30, 1910, page 425) and commended as an ideal means of obtaining a working knowledge of German without the necessity for a dictionary; the postgraduate lectures and talks are given in English and in German on opposite pages. Especial attention is given to the conversations needed in conducting the examination of a patient in various pathologic conditions. The sixty lectures are on various subjects and are authentic clinical lectures. "Self-Taught French" by F. Thimm, and similar pamphlets for German, Spanish and Italian, are published by Dick & Fitzgerald, 18 Ann Street, New York, and are useful for general conversation. A reply to a query in regard to dictionaries in foreign languages was published in THE JOURNAL, March 20, 1909, page 980.

The Public Service

Medical Department, U. S. Army

Changes for the week ended April 1, 1911.

Harmon, Daniel W., lieut., granted two months' leave of absence, to take effect on arrival in the United States.

Skelton, Robert, M.R.C., ordered to proceed to Fort Jay, N. Y.

Davidson, Wilson T., captain, relieved from further duty at Columbus Barracks, Ohio, and ordered to Fort McIntosh, Texas.

Davis, William R., captain, ordered to proceed from Fort Porter, N. Y., to Cleveland, Ohio, on official business pertaining to the medical department of the Army.

Heterick, Robert H., M.R.C., relieved from duty at the Army Medical School and ordered to Fort Brady, Mich., for duty.

Bundesen, H. N., M.R.C., resignation accepted by the President, to take effect March 30, 1911.

Williamson, L. P., lieut., ordered with Co. I, Signal Corps, from Nogales, Ariz., to Hachita, N. Mex., for station.

Wing, Franklin F., D.S., ordered to proceed from Fort D. A. Russell, Wyo., to Fort Robinson, Neb., for temporary duty.

Tuttle, George B., M.R.C., ordered to Fort Miley, Cal., for temporary duty.

Whitmore, E. R., major, on expiration of his present leave of absence ordered to Fort Barrancas, Fla., for duty.

Newton, R. W., M.R.C., ordered to proceed to San Antonio, Texas, and report to the commanding general, department of Texas, for temporary duty.

Blanchard, R. M., captain, left Fort Sheridan, Ill., to inspect the medical and hospital corps of the organized militia of the states of Ohio, Indiana, Illinois, Michigan and Wisconsin.

XUM

U. S. Public Health and Marine-Hospital Service

Changes for the seven days ended March 29, 1911.

Stimpson, W. G., surgeon, granted seven days' leave of absence from March 25, 1911, under paragraph 189, Service Regulations.

McLaughlin, A. J., P. A. surgeon, directed to proceed to various places on the south shore of Lake Erie on special temporary duty.

Warren, B. S., P. A. surgeon, granted fifteen days' leave of absence from March 24, 1911, on account of sickness.

Stimson, A. M., P. A. surgeon, directed to proceed to Philadelphia on special temporary duty.

Pettyjohn, Joseph, P. A. surgeon, granted two months' leave of absence from March 23, 1911, on account of sickness.

Kearny, R. A., asst.-surgeon, directed to proceed to Astoria, Ore., and report to commanding officer of the Revenue Cutter *Manning* for duty.

Parcher, George, asst.-surgeon, directed to proceed to Ellis Island, N. Y., and report to the chief medical officer for duty.

Stiles, C. W., professor of zoology, directed to proceed to Wilmington, N. C., on special temporary duty.

Drs. George Parcher and Louis Schwartz, commissioned (recess) assistant surgeons in the Public Health and Marine-Hospital Service.

Boards of medical officers convened to meet on April 3, 1911, for the physical examination of candidates for appointment as cadet-engineer in the Revenue-Cutter Service. Stapleton, N. Y., detail amended as follows: Passed Assistant Surgeon W. A. Korn, chairman; Passed Assistant Surgeon E. A. Sweet, recorder.

Order convening board at Milwaukee, Wis., revoked.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF POST-GRADUATE WORK, CONTRACT PRACTICE, LEGISLATION, MEDICAL DEFENSE, AND OTHER MEDICOLEGAL AND ECONOMIC QUESTIONS OF INTEREST TO PHYSICIANS

FINANCIAL PROBLEMS *

Charles Haase, M.D.,

ELMIRA, N. Y.

COLLECTING ACCOUNTS

Laying aside all sentiment concerning the practice of medicine that has been handed down from the past when physicians made no charge but accepted honorariums, the fact remains that the physician, like the business man, must keep his income equal to or above his expenditures in order to maintain his credit. The business man from whom he buys expects to be paid; so why should not physicians also expect to be paid for their services? If a physician collects a good share of his accounts each year, it not only enables him to keep his family comfortable, but it also enables him to buy journals, books, instruments and other accessories, that make it possible to render better services to his patients.

Physicians should endeavor to collect from all who are able to pay, even invoking the aid of the law when necessary; but always remembering to take care of those who are unable to pay. It is better to do less business at a proper remuneration than twice the work at half pay. The income will be the same and there will be more time for study and recreation.

The physician's worst enemies are those who have old, unsettled accounts; and these enemies can be changed into friends if they can be made to settle their indebtedness. A person who owes the physician money and does not intend to pay will be one of the first to knock him.

"Short accounts make long friends." By accustoming all classes of patients to an early rendering of accounts, while the amount is small and the service is fresh in memory and appreciation, the satisfaction of both patient and physician will be better assured, collection facilitated, and a better financial morale promoted. The regular collection of accounts has several good effects on a doctor's patients; it teaches them that he expects to be paid for his services, it prevents the bill becoming so large that they are unable to pay it, it weeds out bad payers early, and it avoids many losses due to removals and deaths. To avoid payment people go elsewhere. A good rule to follow is never to allow an account to get larger than a family can comfortably afford to pay. It is unquestionably easier for patients to pay and for a physician to collect $10 twelve times a year than $125 once a year—or even $30 four times a year.

Soon after services are rendered a statement should be rendered, and on the first or fifteenth of each month thereafter. In long-continued cases, the physician should try to collect something while attending the patient. Some men never present a bill but wait the patient's pleasure to pay. This is demoralizing, as it puts the physician in a wrong light. The patient gets the idea that the physician does not need the money and can wait, and he is then often forgotten. Others present bills only once a year, which plan is also open to objection, for the patient accidentally or intentionally forgets the circumstances surrounding a case or the items of the account, and disputes the bill. After sending two or three statements and receiving no response, nothing gives such good results as personal visits.

The accounts may be given to an attorney or a local collector. It is important that a physician keep his word with his debtor. If the physician states that he will sue after a certain date, if the individual fails to make a satisfactory arrangement about his account, then he must do it. The moral effect of a successful collection is of more value than the costs. Having people say: "Dr. Blank is a good doctor, but he expects his pay," is worth hundreds of dollars and the reputation can be acquired by a couple of years of close collecting.

FEES

The income from a medical practice rarely equals the income obtained by men of equal ability, whose education and capital are invested in commercial pursuits, notwithstanding the great responsibilities physicians carry which laymen escape. The principal reason for this is that physicians have a constant tendency to settle down to a level—and that the lowest level of professional fees—from which they find it difficult to rise. There is too much tendency to dull routine in charges. There should exist a wide range of charges for medical services, depending on several factors, such as the severity of the case, time given to it, the dangers to the physician and his practice, and the ability of the patient to pay. People should be impressed with the fact that the fee bill represents the minimum fee for ordinary services only, and that when special attention is required a fee in accordance with it should be expected. This is done in surgical cases; why not in medical cases?

The price of a visit does not necessarily pay for services rendered. When, therefore, physicians try to collect something for extra services they are invariably confronted with the settled price of a visit. Such a procedure by no means compensates the physician under all circumstances. A rich man will have his life saved for a thousandth part of what he will pay a lawyer to save his business, and then he will object to the physician's bill. The lawyer long ago learned to value and to charge for special services according to their value and according to the ability of the client to pay; he no longer charges so much a visit or consultation.

When a physician has saved a patient from death or from poisoning he should charge for a major operation, which is what has really been performed, and he should not send a bill for $2 for a night call. It is the medical profession's duty to educate the unthinking public to appreciation of the fact that it takes more skill and a finer quality of judgment to carry a patient through a long period of critical expectancy terminating in a successful accouchement, than to amputate an arm or a leg, and that physicians should be paid accordingly.

In attending contagious diseases, physicians incur danger to themselves, their family and their practice. They should be compensated for the risk and the loss sustained, by a reward at least double that received in ordinary cases.

There is no need of rendering an itemized account to patients. In making out a bill, medical men should take into consideration time, ability and service; nothing less than this will insure the justice that they deserve. Unless physicians come to some understanding of this kind with themselves, unless they ask for a professional fee in proportion to their service and without fixed rates, they will never be paid for what they do. For example, during certain stages of a case

* Read at the Elmira Clinical Society, November, 1910.

of pneumonia or diphtheria, it is important that they be able to watch the case very closely and adapt treatment to the varying conditions, instead of making a regular visit and going back to the office to await further summons. If a lump charge be made, they will feel at liberty to call as often as necessary.

The dead-level fee—the same price for everybody—for all kinds of cases—should have no place in medicine.

DISPENSING

It certainly pays to dispense: First, the patient has his treatment at once; second, he will return if he needs more medicine and the physician can see the effect of the medication and change, continue, or discontinue it as necessary; third, the patient cannot pass the prescription to his friends who are "just as he was." A physician who habitually writes prescriptions, or prescribes proprietary preparations, simply hands over to the public a part of his income. Hit or miss, the laity will essay to treat themselves and even their friends and neighbors by the name or number on the bottle or box. At times, when the physician has not the appropriate medicine, it will be necessary to write a prescription, but this will not happen often, if he learns thoroughly the action of the most important drugs and carries them in his case. Let physicians have printed on their prescription blanks, "Do not repeat" or "*Ne repetatur*."

The New York Board of Health undertook to ascertain the extent to which substitution was being practiced in New York City, and sent out 373 prescriptions for phenacetin, with the result that only 58 were found to be pure phenacetin; in 315 there was substitution.

SUMMARY

To sum up: Let physicians collect while bills are small; educate the people that the fee schedule is only a minimum one; present bills in lump sums, and keep guard over prescriptions.

110 West Church Street.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month—Second Weekly Meeting

ANATOMY AND PHYSIOLOGY OF THE NERVOUS SYSTEM

WEIGHT and size of the brain and spinal cord in infancy and childhood. Rate of growth.

PHYSIOLOGY OF NERVOUS SYSTEM: Instability of nerve centers; excessive irritability of motor, sensory and vasomotor nerves; marked effect of reflex irritations; grave permanent effects following slight lesions.

DISEASES OF THE NERVOUS SYSTEM

CONVULSIONS: Etiology: Predisposing causes, instability of nerve centers, nutritive disturbances, constitutional diseases, heredity, etc. Exciting causes: (1) Direct irritation of cortex, meningitis, hemorrhage, abscess, etc.; (2) reflex irritation, digestive disturbances, injuries, phimosis, retention of urine, etc.; (3) toxic influences, uremia, asphyxia, acute infections, pertussis, convulsions associated with enlarged thymus. Idiopathic convulsions.

Diagnosis as to etiology.

Treatment in detail.

TETANY

ETIOLOGY: Age, sex, frequency. Rickets, gastro-intestinal disorders, bronchopneumonia, etc.

SYMPTOMS: Onset of spasm, extension, duration. Reflexes, effect of local irritation. Pain.

Diagnosis.

LARYNGISMUS STRIDULUS

Frequency, age, association with rickets. Symptoms and diagnosis.

REFERENCE BOOKS FOR THE NINTH MONTH

Holt: Diseases of Infancy and Childhood.
Koplik: Diseases of Infancy and Childhood.
Rotch: Pediatrics.
Starr: American Text-Book of Diseases of Children.
Taylor and Wells: Diseases of Children.
Pfaundler and Schlossman: Diseases of Children.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

DISTRICT OF COLUMBIA: Washington, April 11. Sec., Dr. George C. Ober, 125 B St., S.-E.

GEORGIA ECLECTIC: State Capitol, Atlanta, about April 20. Sec., Dr. C. W. Miller, 192 W. North Ave.

NEW MEXICO: Santa Fe, April 9-10. Sec., Dr. J. A. Massie.

OKLAHOMA: Oklahoma City, April 11. Sec., Dr. Frank P. Davis, Enid.

WEST VIRGINIA: Huntington, April 10-12. Sec., Dr. H. A. Barbee, Point Pleasant.

Colorado January Report

Dr. S. D. VanMeter, secretary of the Colorado State Board of Medical Examiners, reports the written and oral examination held at Denver, Jan. 3-7, 1911. The number of subjects examined in was 8; total number of questions asked, 80; percentage required to pass, 75. Nine candidates were examined, of whom 3 passed and 6 failed, including 1 osteopath. Twenty-nine candidates were registered on presentation of satisfactory credentials, including state licenses. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Denver and Gross College of Medicine, (1910)	80.1,	80.1, 82.8

FAILED

Keokuk Medical College	(1898)	58
Kentucky School of Medicine	(1898)	65.6
Barnes Medical College	(1907)	66.1
St. Louis College of Physicians and Surgeons	(1906)	55.7
Kansas City Hahnemann Medical College	(1910)	66

REGISTERED ON CREDENTIALS

College	Year Grad.	State Licenses
Georgetown University	(1899)	Kansas
Hahnemann Med. Coll. and Hosp., Chicago	(1900) (1907)	Illino.s
College of Physicians and Surgeons, Chicago (1505) (2, 1906) Illinois.	(1889)	Virginia;
Northwestern University Medical School	(1897)	Illinois
Keokuk Medical College	(1896)	Missouri
College of Physicians and Surgeons, Keokuk	(1881)	Missouri
Drake University	(1897)	Wyoming
Sioux City College of Medicine	(1901)	Iowa
Kansas Medical College	(1898)	Kansas
University of Louisville	(1889)	Missouri
Tulane University of Louisiana	(1906)	Alabama
Baltimore Medical College	(1903)	Penna.
Marion Sims College of Medicine	(1898)	Oklahoma
Ensworth Medical College	(1895)	Kansas
St. Louis College of Physicians and Surgeons	(1893)	Kansas
American Medical College, St. Louis	(1908)	Missouri
University and Bellevue Hosp. Med. College	(1903)	Utah
Lincoln Medical College	(1901)	Nebraska
Long Island College Hospital	(1895)	New York
New York Homeopathic Med. Coll. and Hospital	(1903)	New York
Cleveland Homeopathic Medical College	(1909)	Ohio
Jefferson Medical College	(1887)	Penna.
University of Pittsburg	(1907)	Penna.
Medical College of South Carolina	(1902)	S. Carolina
University of Nashville	(1899)	Nebraska

The following questions were asked:

ANATOMY

1. Describe the radius, including muscular and ligamentous attachments. 2. Describe the sternum, including muscular and ligamentous attachments. 3. Describe the elbow joint. 4. Describe the ankle joint. 5. Give the origin, insertion and nerve supply of the following muscles: triceps, pyriformis, peroneus longus, levator ani, levator anguli scapulæ. 6. Name the supinators of the forearm and give the nerve-supply of each. 7. Name the branches of the internal iliac artery. 8. Give the collateral circulation that would follow ligation of the common carotid. 9. Describe the lumbar plexus. 10. Describe the right kidney, including its relations. Alternate question: Where are the cortical centers of the face, arm and forearm?

PATHOLOGY

1. Give the pathology of acute anterior poliomyelitis. 2. Describe the process of amyloid degeneration. 3. Describe the structure of sarcoma, giving the various types. 4. How would you make a Widal test? 5. How would you distinguish *B. coli communis* from *B. typhosus*? 6. Define (1) anaphylaxis, (2) tuberculin, (3) *Treponema pallida*, (4) Wassermann reaction, (5) leukopenia. 7. Discuss

uremia. 8. Describe the most common tumor found in bone. 9. Describe the changes undergone in the brain after cerebral embolism. 10. Give microscopic appearances of a gumma.

PHYSIOLOGY

1. Discuss metabolism. 2. Discuss digestion. 3. Discuss elimination. 4. Discuss respiration. 5. Discuss circulation (blood and lymph). 6. Give a physical description of the blood, with functions of its component parts. 7. Define reflex arc, give examples of reflex action. 8. Give in outline the sympathetic nervous system with functions. 9. Give distribution and function of cranial nerves. 10. Define hyperopia, myopia and astigmia, giving general principles involved in their detection and correction.

CHEMISTRY

1. What is indican, and what does it signify when found in the urine? 2. How would you determine the presence or absence of acetone in urine? 3. Define osmosis. 4. What are the chemical constituents of normal urine? 5. Give a concise description of a chemical examination of normal urine. 6. Name a chemical incompatibility, describing the reaction. 7. What chemical tests are used in the detection of occult blood? 8. Give a general definition of an ether. 9. Give the composition of water by volume and by weight. 10. What is a compound radical? Give examples, with the valence of each.

TOXICOLOGY

1. From a medical standpoint define toxicology. 2. In the event you were called to a case with the following symptoms—drowsiness, headache, giddiness, stupor, delirium, convulsions and paralysis, what would be your diagnosis? 3. What would be your treatment? 4. Give symptoms of poisoning by lead acetate. 5. Treatment and post-mortem appearance. 6. Give symptoms of poisoning by tartar emetic. 7. Treatment and post-mortem appearance. 8. Give symptoms of poisoning by corrosive sublimate. 9. Treatment and post-mortem appearance. 10. Give difference in symptoms of poisoning by corrosive sublimate and those of arsenic.

SURGERY

1. Give the causes of arteritis and describe the symptoms and complications. 2. What are the symptoms and causes of lymphadenitis. 3. Give the symptoms of a tubercular abscess. 4. Discuss sarcoma of the kidney. 5. Give the symptoms and causes of acute osteomyelitis. 6. Give some of the complications and consequences of fractures. 7. Give the symptoms of fracture of the surgical neck of the humerus. 8. Give the symptoms of tubercular arthritis of the elbow joint. 9. Give the symptoms of dislocation of the head of the femur on the dorsum of the ilium and what per cent. of hip dislocations does this form comprise? 10. Give the symptoms of strangulated hernia.

OBSTETRICS

1. Describe in detail your procedure after arrival at the lying-in chamber when the patient is (a) in the first stage of labor, (b) in the second stage, (c) and the third stage. 2. Describe the toxemias of pregnancy and tell what you would do to prevent or relieve same. 3. What is "morning sickness?" Give causes, duration and treatment. 4. What are the indications for the use of the obstetrical forceps? Describe their application. 5. Give directions for the care of a woman after delivery—(a) normal, (b) instrumental. 6. When should a lacerated perineum be repaired, and give technic? 7. What means would you employ to prevent laceration of the perineum when the head is well down on the perineum and labor pains are strong? 8. How would you treat a case of ophthalmia neonatorum? 9. Give symptoms of pregnancy and their relative importance. 10. Give method of procedure in case of retained secundines in four month abortion.

SYMPTOMATOLOGY

1. Describe, locate and give causes of the different heart murmurs. 2. In what order and at what time do the teeth erupt in childhood? 3. Give symptoms of tuberculous hip-joint disease. 4. Give cause and symptoms of multiple neuritis. 5. Give symptoms of scurvy in children. 6. Give cause, prognosis and symptoms of myocarditis. 7. Give symptoms of chronic appendicitis. 8. Describe your procedure in making a physical examination of the abdomen. 9. Differentiate between pyelitis and cystitis. 10. Give cause and symptoms of pulmonary edema.

Utah January Report

Dr. G. F. Harding, secretary of the Utah State Board of Medical Examiners, reports the written examination held at Salt Lake City, Jan. 4-5, 1911. The number of subjects examined in was 21; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 8, of whom 7 passed and 1 failed. One candidate was licensed through reciprocity. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Northwestern Univ. Medical School (1909) 80.8;	(1910)	76.5
Hahnemann Med. Coll. and Hosp., Chicago	(1910)	75
St. Louis College of Physicians and Surgeons	(1910)	77.1
Medical College of Ohio	(1902)	77.5
Jefferson Medical College	(1910)	84.4
Medico-Chirurgical College, Philadelphia	(1899)	79.3

FAILED

Gross Medical College	(1895)	45

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Northwestern University Medical School	(1909)	Illinois

Book Notices

DYKE'S AUTOMOBILE ENCYCLOPEDIA (1911). In 29 Parts, Including a Dictionary. Treating on Construction, Operation, Repairing of Automobiles and Gasoline Engines. By A. L. Dyke, E.E., Member Society Auto Engineers. Cloth. Pp. 407, with illustrations. St. Louis: A. L. Dyke.

It is not surprising that one edition of this book has been exhausted, for it is a most complete work. In twenty-nine instructions, or chapters, and with a profusion of illustrations, all well made and useful, the author endeavors to discuss the principles on which gasoline engines and automobiles are operated and built. He adheres strictly to the practical side of the subject, never indulging in theorization. The man who takes care of his own car will find this book full of useful hints and information. It propounds queries, such as are often put by a puzzled operator, and answers them. A separate chapter is devoted to "troubles."

OXYPATHIE. Von Dr. Wilhelm Stoeltzner, Direktor der Universitäts-Poliklinik für Kinderkrankheiten in Halle a. S. Paper. Price, 3 marks. Pp. 92. Berlin: S. Karger, Karlstrasse 15, 1911.

Stoeltzner proposes the term *Oxypathie* to cover all that is comprised in the French *arthritisme*, the English lithemia and the German *exudative Diathese*, and still further extends the ramifications of that very complex clinical picture. He finds these terms objectionable because they all unduly emphasize one aspect of the diathesis. The word *Oxypathie* conveys, furthermore, the idea that the essential condition in this diathesis is an acid intoxication of alimentary origin. Thus he maintains that the essential difficulty in feeding cow's milk to an infant lies in the absorption of phosphoric acid, a phosphoric acid intoxication, due to the liberation of a large amount of this acid from its normal combination with the large amount of calcium contained in cow's milk, because of the uniting of the large amount of fatty acids formed from the fat with this calcium. He believes a similar acid intoxication to be the basis of *Oxypathie* in general and finds the sovereign remedy in sodium citrate, which he considers almost a specific in infant-feeding with cow's milk, and even, under certain conditions, with breast-milk, in infantile atrophy, in infantile eczema (with almost unfailing results), in rickets, in scrofula, in asthmatic bronchitis, in lichen urticatus, cyclic vomiting, migraine, and also in the less definite manifestations, such as paleness, poor nutrition, nervousness, obesity, etc. Whether the reader will consider this new teaching as a stroke of synthetic genius, or as the elaboration of an idea dominated by an unconquerable bias, will make little difference in the enjoyment—and, we might say, profit—that he will obtain from a careful reading of the ninety-two pages of this rather startling little book.

THE PROPHYLAXIS AND TREATMENT OF INTERNAL DISEASES. Designed for the Use of Practitioners and of Advanced Students of Medicine. By F. Forchheimer, M.D., Professor of Medicine, Medical College of Ohio. Second Edition. Cloth. Price, $5. Pp. 172. New York: D. Appleton & Co., 1910.

This is a revision in fact and not merely a reprinting of the first edition. The aim has been to bring therapy up to date, to weed out obsolete and useless plans of treatment and to include whatever of the new appeals to the author because based on scientific principles, or endorsed by reliable men, or tried by himself and found acceptable. Several new chapters—some of them very short, we must admit—have been added, on such subjects as dysentery, Rocky Mountain fever, splenomegaly, tuberculous meningitis, etc. Serum therapy receives notice. Some chapters have been entirely rewritten. The sincere attempt to make a practical, scientific work on treatment seems successful. We might occasionally ask for a little more detail, as, for instance, how to use the quinin injections in amebic dysentery. Harm may perhaps come, it is said, from using too large an amount of water, but we are not told how much it is wise to employ; or whether in any case surgery is of avail.

Dead gonococci, the so-called vaccines, are mentioned as of service in gonorrheal arthritis. This is true, but their use is really limited to the chronic forms. Other articles are much fuller. We noticed particularly the discussion of diet

in the treatment of obesity; also the treatment of chronic myocardial insufficiency.

The best feature of the book is that it contains the personal experience of the author; it is not a mere compilation from the literature. Every page bears the stamp of the practical physician who has tried nearly all of the plans of treatment recommended and knows whereof he speaks. The author's wide and varied experience, his sane judgment, and his ability to express his ideas clearly, forcibly and concisely, make the book a valuable addition to the library of the practitioner who is seeking aid in the treatment of internal diseases.

Medicolegal

Skill and Care Required in Making Tests to Ascertain Nature of and Treat Injuries—Error of Judgment

The Supreme Court of North Carolina considers test requirements in the malpractice case of Long vs. Austin (69 S. E. R. 500), where it affirms a judgment in favor of the plaintiff, who alleged that her shoulder joint had become dislocated by a fall, and that the defendant, on examination, failed to discover the dislocation and to apply such remedies as were necessary to restore the shoulder to its normal condition, which could have been done by the exercise of ordinary care and skill.

The court says that the mere use of approved tests, or those which have been found to be the best for the discovery of a dislocation or fracture or any other abnormal condition of the human body, is not all that is required of a surgeon or physician in the care and treatment of his patient. He must exercise that reasonable skill, care and proficiency in making the tests and in ascertaining from them the presence of any injury and generally in the treatment of his patient which a member of his profession of ordinary care and prudence should use under the circumstances. He is not bound or confined to any special treatment, but to an ordinarily careful and skilful one.

It was requested that the jury should be instructed that if they found that the defendant used the following tests: laying her right arm across her chest, placing her right hand on her left shoulder and pressing her right elbow against her chest, then placing her right hand on top or back of her head, and measuring both arms from the shoulder to the elbow and comparing the measurements, then the defendant would have used the proper tests, and if these tests failed to disclose the dislocation of the arm, then the jury should answer in the negative the question of whether the plaintiff was injured by the negligence or want of skill of the defendant, as alleged in the complaint. The court properly refused to adopt this language and to give the instruction as requested. The defendant's application of a test, even the ordinary and usual one, was not, by itself, a full compliance with the duty he owed to his patient. The requested instruction omitted any reference to the care and skill the law required him as a surgeon to bring to the use of the test and general treatment of the case. If he made the test and failed in other respects to exercise ordinary care, skill and diligence, he was just as liable for a consequent injury as if he had not applied the test at all.

The requested instruction was also deficient in not requiring the jury to find what was the proper test, especially as the evidence on this question was not all one way. A hypothetical question should contain all the facts essential to the expression of an intelligent opinion by the expert and of which there is evidence, and not a partial statement of the facts which could not present the entire matter to the witness, so as to enable him to give such an opinion as the law permits to be considered by the jury. The application of the ordinary test would be evidence on the question as to whether the defendant had exercised the care and skill required of him, but would not be plenary or conclusive proof or be fully determinative of the fact. He may not have applied the test properly, or, if he did, he may not have possessed the requisite knowledge and skill to understand the symptoms which it disclosed, or to apply the proper remedy. It was for the jury to decide, on the evidence and under the instructions of the court, whether the defendant possessed the requisite knowledge and skill and had carefully applied them in behalf of his patient.

Again, it was requested that the jury be instructed that if they found from the evidence that the defendant made a mistake or error of judgment only in his treatment of the plaintiff, they should answer "No" on the issue of whether the defendant was injured by the negligence or want of skill of the defendant, as alleged in the complaint. The instruction, as requested, was faulty in that it left out of consideration the material question as to the care and skill required of a physician when treating his patient. The jury were properly told that the defendant owed to the plaintiff that degree of care and skill which is ordinarily practiced and possessed by the average of his profession, and not the highest known to his profession. Where a physician exercises ordinary skill and diligence, he is not liable for a mere mistake of judgment. The law does not excuse an error of judgment if it occurs by reason of the surgeon's lack of that knowledge which he should possess in order to qualify him for the practice of his profession, or the failure to exercise the requisite skill and diligence.

Christian Science Healer a Practitioner of Medicine Amenable to Law

City Magistrate Freschi, of the City Magistrate's Court of the city of New York, First Division, Second District, holds, in People vs. Cole, on an application by the New York County Medical Society, that a warrant should be issued on an information charging the defendant, a Christian Science "healer," with practicing medicine without being duly qualified and licensed.

The magistrate says that he is of the opinion that the practice of the treatment of sickness and disease by inaudible prayer, as established by the evidence in this case, violates the law of New York State. The only theory on which the defendant could claim any right to practice as a "healer" of diseases and sickness was that the reservation, stated in the public health law of the state to the effect that it should not be construed to affect the practice of the religious tenets of any church, excluded him from the operation of the definition of the practice of medicine. It is, of course, true that the state constitution grants to every person freedom of conscience in matters of religion; but, on the other hand, it specifically provides that "the liberty of conscience hereby secured shall not be construed as to excuse acts of licentiousness or justify practices inconsistent with the peace or safety of this state." The public health and the treatment of diseases are matters of great concern to all states and the subject of proper public regulation in the exercise of their police powers.

From a study of a number of cases it must be ruled that religion is beyond judicial interference so long as one keeps it to himself and does not jeopardize others; but the moment there is an invasion of the rights of the state by some overt act or conduct that tends to affect the safety and future welfare of its people, then the civil government may intervene for its own protection and preservation. Religious belief is no excuse for an unlawful act. No person under the guise of the practice of the principles and tenets of any church may violate the law of the land. A thorough and prolonged search of all decisions in point rendered in the courts of our states fails to reveal that religion or its practice has even been construed to be a business.

The Christian Scientist has the right to believe that he can heal by prayers, but this court is of the opinion that if he carries and puts that belief into practice for hire and solicits patients by advertisement, then he exceeds his rights as an individual under the law and comes directly within the prohibition of the constitution. He must subordinate his beliefs to the rights of the community and of the state as an entity when the free exercise of such belief either impairs and endangers the health of the people or tends to place their health in jeopardy so that the safety of the state will be affected. Certainly the continuance of a practice or profession to heal as the defendant claimed could be done in this case ought to be the subject of judicial review of the higher and appellate courts.

XUM

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, Los Angeles, June 27-30.

Alabama, Medical Society of the State of, Montgomery, April 18.
Am. Assn. of Pathologists and Bacteriologists, Chicago, April 14-15.
American Gastro-Enterological Assn., Philadelphia, April 19-20.
Am. Assn. Genito-Urinary Surgeons, New York, May 1-3.
American Dermatological Association, Boston, May 25-27.
American Gynecological Society, Atlantic City, May 23-25.
American Laryngological Association, Philadelphia, May 29-31.
American Neurological Association, Baltimore, May 11-13.
American Orthopedic Association, Cincinnati, May 15-17.
American Pediatric Society, Lake Mohonk, May 31-June 2.
American Society of Tropical Medicine, New Orleans, May 18-19.
American Therapeutic Society, Boston, May 11-13.
Arizona Medical Association, Bisbee, May 2-5.
Arkansas Medical Society, Fort Smith, May 2-5.
Association of American Physicians, Atlantic City, May 9-10.
California, Medical Society of State of, Santa Barbara, April 18.
Connecticut State Medical Society, Hartford, May 24-25.
District of Columbia, Medical Association of, Washington, April 25.
Florida Medical Association, Tallahassee, May 10.
Georgia, Medical Association of, Rome, April 19-21.
Illinois State Medical Society, Aurora, May 16-18.
Iowa State Medical Society, Des Moines, May 17-19.
Kansas Medical Society, Kansas City, May 3-5.
Louisiana State Medical Society, Shreveport, May 30-June 1.
Maryland, Med. and Chirurgical Faculty of, Baltimore, April 25-27.
Mississippi State Medical Association, Jackson, April 11.
Missouri State Medical Association, Jefferson City, May 16-18.
Montana State Medical Association, Butte, May 10-11.
Nebraska State Medical Association, Omaha, May 2.
New Hampshire Medical Society, Concord, May 11-12.
New York, Medical Society of the State of, Albany, April 18.
North Dakota State Medical Association, Fargo, May 9-10.
Ohio State Medical Association, Cleveland, May 9-11.
Oklahoma State Medical Association, Muskogee, May 9-11.
South Carolina Medical Association, Charleston, April 19-21.
Tennessee State Medical Association, Nashville, April 11-13.
Texas, State Medical Association of, Amarillo, May 9-11.
Washington State Medical Association, Spokane, May 9-11.

TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA

Thirteenth Annual Session, held at Raleigh, N. C., Feb. 22-23, 1911

Officers Elected

The following officers were elected for the ensuing year: President, Dr. J. Howell Way, Waynesville, N. C.; vice-presidents: for North Carolina, Dr. Thomas E. Anderson, Statesville; for South Carolina, Dr. F. H. McLeod, Florence; for Virginia, Dr. W. E. Anderson, Farmville; secretary-treasurer, Dr. Rolfe E. Hughes, Laurens, S. C.; councillors: Drs. E. C. Register, Charlotte, N. C., W. W. Fennell, Rock Hill, S. C., Samuel Lile, Lynchburg, Va.

The next meeting will be held in Columbia, S. C., the third Wednesday in February, 1912.

The Hon. W. W. Kitchin, Governor of North Carolina, delivered the address of welcome.

President's Address: Preventive Medicine

DR. JOSEPH WHITE, Richmond, Va., delivered his address at a special evening session, and it was unanimously voted by the association that the address should be published, not only in the medical journals of the three states, but in some lay monthly magazine of large circulation in the South. He said in part:

The work of Pasteur, Koch, Ross and others in the last century has made possible such triumphs of modern medicine as the construction of the Panama Canal, the suppression of yellow fever in Cuba, the reduction of the death-rate from tuberculosis, the control of bubonic plague, the elimination of typhus fever, the prevention of rabies and the cure of syphilis. Preventive medicine has almost eliminated puerperal infection; has furnished specific treatment for diphtheria and cerebrospinal meningitis, and is waging a strong battle against ophthalmia neonatorum. Why should Virginia and the Carolinas be so far behind in the matter of registration of midwives? In some of our sister states this matter has been properly regulated. The medical inspection of school children and school hygiene are now recognized as the best means a state can adopt to insure good citizens in the future. The removal of tonsils and adenoids, the correction of defective vision and hearing, and the removal to outdoor schools of the tuberculous children in our schools is economy of the best sort and should be a matter of public concern.

Report on Some Patients Treated With Salvarsan

DR. LAWRENCE PRICE, Richmond, Va.: The method of preparation of the drug for administration was an adaptation of two of Ehrlich's methods combined with that of Junkerman. In five cases I used methyl-alcohol to dissolve the salvarsan. In all of the patients the drug was injected hypodermatically into the gluteal muscles. With four no alcohol was used, the drug being dissolved with warm sterile water. The administration in one case was subcutaneous; in three, intravenous. From experience with four out of nine cases, I concluded that the Wassermann reaction does not become negative under fourteen days, when the intramuscular method is used. I have not been able to notice any difference in the rapidity of the disappearance of lesions by one method over the other, though mucous patches clear up more rapidly than skin lesions. In all of the first eight cases I am administering by mouth mercurial treatment, and intend to continue so, regardless of the finding by the Wassermann test, for a period of five or six months. The method of administration, I think, should be governed by the stage and extent of the lesions, though from the patient's standpoint, the intravenous method is more desirable because of the absence of pain afterward; but the technic of administration by this method is rather dangerous, unless extreme care is exercised to avoid getting air into the vein; and, also, care that everything used from the beginning of the preparation of the dose to the dressing of the wound should be absolutely sterile, together with close attention to the technic of intravenous injection. I believe that the desired results can be obtained by the intravenous method if salvarsan be administered during the primary and very early part of the secondary stage, before any pathologic changes have taken place in the various tissues of the body, because of the floating action of the drug when thrown directly into the circulation. In the late secondary and in the tertiary stages, a more gradual and continuous action on the spirochetes is desired, so I advise the intramuscular method. In one case reported there were untoward effects which I believe were due to overdosing with chloral; in two others, the pain down the thighs and legs did not clear up entirely for two weeks. The curative effects of salvarsan in the treatment of syphilis during any of its stages is, in my opinion, unquestionably proved, if the drug is properly prepared for administration. I believe that many of the reported untoward effects and recurrences have been due to improper dispensing.

DISCUSSION

DR. TOM A. WILLIAMS, Washington, D. C.: The fact that we should diagnose tabes without a reaction is clear, and is illustrated by a case which I saw last autumn. There was a persistent negative Wassermann reaction, but the character of the distribution of a pain in the line of the distribution of the fifth lumbar root was so characteristic that in spite of bladder symptoms having been cleared up by proper treatment, I injected mercury and the pain cleared up in a few weeks. However, the man relapsed again in five weeks and showed positive reaction. I gave salvarsan intravenously; but the pain disappeared for only one week, the reaction becoming negative completely for one week only; the man is now taking mercury. It is a question if we should administer this drug in preference to mercury, which, properly used, can arrest lues, and even parasyphilis, as the cases of Dana and myself indicate in this country, following those of Babinski and his followers in France.

Diagnosis and Treatment of Tumors of the Breast

DR. J. SHELTON HORSLEY, Richmond, Va.: Knowledge of practical pathology is a necessity to any surgeon who operates on tumors of the breast. In many instances the diagnosis must be made at the operating table, as no tumor should be cut into for diagnostic purposes unless operation follows immediately. The surgeon should carry the pathology in his head and fingers and not in those of some one else. I follow the classification of Warren, dividing tumors into cancer and fibro-epithelial tumors. The latter class is subdivided into those in which the fibrous tissue predominates and those in which the epithelial tissue is most prominent. The last-mentioned tumors are likely to degenerate into cancer and usually

occur late in life. I wish to emphasize two points in making the diagnosis of cancer: first, the detection of the slightest tendency to retraction; and, second, the absence of pain. The first symptom may be tested by moving the skin over the tumor, by moving the tumor within the breast substance and by moving the breast on the fascia of the pectoral muscles. The slightest limitation of motion is exceedingly suggestive of cancer. The patient should be stripped to the waist and sitting on a stool in a good light; if the shoulders are equal the nipple of the affected breast will be at a little higher level than the nipple of the healthy breast if the tumor is cancerous. If the tumor is a benign one, the nipple will be either lower or on a level with the nipple of the healthy breast. This is due to the fact that cancer cells form some product that is irritating to the tissue, and tends to cause contraction, just as contraction in cirrhosis of the liver is caused by irritation. In the majority of cases a correct diagnosis can be made in the early stage by the ordinary signs and symptoms without resort to incision; but the diagnosis should always be cleared up at once whenever a patient presents herself with a growth in the breast, as the chances for permanent cure in cancer of the breast mathematically decrease with each day of delay. I have never known of pain in any cancer of the breast in the early stage, though the laity and some physicians seem to think this a constant symptom. Pain is more likely to be present in a benign tumor than in a cancer, though it is not often encountered with in any tumor of the breast in the early stages. If incision is necessary for clearing up the diagnosis, the patient should be prepared for immediate operation, either radical or local, depending on the diagnosis that the incision will show. There is practically no danger in following an incision immediately by operation, but to incise a cancerous growth and operate a day or two later invariably results in recurrence. If the growth incised is a benign tumor, it will bulge into the wound and its capsule will retract. If it is cancerous, there will be no distinct capsule and the growth will lie flat as though the incision had been made into a piece of wax. If the growth is cystic and is cancerous, its contents will be either dark and grumous or bloody and the wall of the cyst will be thickened throughout or in patches. If the cyst is benign the wall is thin and its contents will be either clear or straw-colored. I advise local extirpation in benign tumors and radical operation in cancer, beginning at the axilla and excising all of the material with a wide margin of skin in one mass.

DISCUSSION

DR. J. T. BURRUS, High Point, N. C.: I am much interested in cancer, and spent the greater part of last year in a cancer hospital. I am convinced that to lower the mortality from cancer in this country we must make an early diagnosis and then do a sufficiently radical operation. There is nothing closer to criminality than to go into cancer substance. I remember a case of a melanotic sarcoma in which the surgeon had gone into the cancer substance, and in less than six weeks metastasis had developed in the supraclavicular glands and the glands of the neck, on both sides.

DR. J. W. LONG, Greensboro, N. C.: One phase of this subject which I think should not go unnoticed is the contagiousness of cancer. Just one illustration: It had been noticed that the fish in certain pools in the State of New York were subject to cancer of the thyroid gland, and this was observed so constantly that, in order to test the matter, young puppies were brought from another section of the state and allowed to drink water only from one of these pools that contained cancerous fish. In a short time every one of the puppies developed carcinoma of the thyroid.

DR. G. P. LAROQUE, Richmond, Va.: The best way to cure cancer is to prevent it, but if it has already developed we should remove it at the earliest possible moment. Therefore, every tumor of the breast, even when not obviously cancer, should be removed at once and subjected to microscopic examination by a competent pathologist. It seems to me a little illogical to make a diagnosis by the absence of anything, and especially by the absence of pain. A tumor which is actually of itself not painful may be complicated by traumatism or inflammation and become the seat of pain, even though cancer is not painful. As a matter of fact, a large number of cancers of the breast are secondary to mastitis and mastitis is necessarily painful.

The Cancer Committee

The association, through this committee, is waging active warfare against cancer in an effort to lessen materially the 80,000 deaths from this cause in the United States each year.

The present committee was unanimously continued for another year. This committee will be divided into sub-committees, with Dr. Horsley of Virginia, Dr. Rankin of North Carolina, and Dr. Williams of South Carolina, as chairmen, and the members will meet within these three states several times each year. They will prepare circulars and distribute them as widely as possible, the council being requested to furnish funds for this purpose. The boards of health have promised their cooperation, and each member of the association has been urged to do his part toward educating the public in the prevention of this disease. In addition, literature on the subject is to be sent to the members of the association, fully disclosing the plans and purposes of the committee, and the lines on which they will be asked to cooperate in educating the laity.

The Conservation of Sight

DR. J. W. JERVEY, Greenville, S. C.: The preservation of the public sight must be a great factor in the development of a people. Sins are daily being committed by a modern civilized people on a nation's eye-sight; but all the errors are preventable and many of them easily so.

The factors injuring vision are as follows: Ophthalmia neonatorum; pernicious activity of the so-called optometrists; the advertising eye doctor; the white incandescent mantle and electric bulb; badly printed newspapers and school books; badly lighted schools; unsuitable school desks; kindergartens; moving-picture shows; antipathy to the use of glasses.

DISCUSSION

DR. ROLFE E. HUGHES, Laurens, S. C.: I desire to emphasize especially one point: the prevention of ophthalmia neonatorum. I wonder why more obstetricians do not make it a rule to use a prophylactic remedy of from 1 to 2 per cent. silver nitrate. I have for years done that as often as I ligate the umbilical cord. And I might add, in the case of the male, a circumcision would be another good step at this time.

At the conclusion of Dr. Jervey's paper a motion was made, and unanimously seconded, that the Tri-State Medical Association request that Dr. Jervey's paper be published in one of the leading national weekly or monthly lay magazines, as a contribution from the association to the education of the people. The motion was adopted.

Rheumatism

DR. J. N. UPSHUR, Richmond, Va., discussed the causation of rheumatism, his deductions from reports of investigations to the present day being that the causation of rheumatism from a germ has not yet been satisfactorily established, and clinical observation shows that the best results come from treatment on the old theory of unbalanced metabolism. He emphasized the use of alkalies, notably, bicarbonate of potash, until the secretions become neutral; following this up by the administration of some one of the salicylates, the best results are obtained, with much diminished risk of heart involvement. He recommended ammonium carbonate, in doses of from 5 to 10 grains every two hours, as a most satisfactory remedy in the treatment of endocarditis, minimizing the risk of emboli, and subsequent damage to the heart valves.

DISCUSSION

DR. J. N. WALTON, Richmond, Va.: It was shown more than thirty years ago that the combined Fuller, or alkaline treatment, with the salicylates would reduce the heart complications to the minimum. Bicarbonate of potassium or sodium, well diluted in water, should be given frequently enough to keep the urine alkaline; the nurse should be supplied with litmus paper and the urine should be tested for acidity several times a day. The salicylates are liable to ruin the digestion and the least objectionable is the effervescing salicylate of strontium to be given well diluted in cold water. In chronic

rheumatism the treatment should be dietetic and eliminating, and experience has abundantly established the value of hydrotherapy and electricity over all other agents in the successful treatment of this type of rheumatism.

DR. DOUGLAS VANDERHOOF, Richmond, Va.: In this connection I would call attention to a paper published several years ago by Dr. T. W. Clarke, of the Lakeside Hospital, Cleveland, Ohio, in which he advocated the use of large doses of sodium salicylate at the onset of acute arthritis. He gives 30 grains of sodium salicylate every four hours for eight doses—half an ounce of the drug in thirty-two hours. In acute rheumatic fever this treatment promptly relieves pain, and also reduces the fever and the swelling of the joints, whereas in acute gonorrheal arthritis the symptoms are not so marvelously alleviated. In a rather large series of cases of acute rheumatic fever, these massive doses were found to be not injurious to the heart but rather served to protect that organ by cutting short the course of the disease. In my hospital experience I had good opportunity to prove the value of this procedure in the differential diagnosis of certain cases of acute arthritis.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Annual Meeting, held in Chicago, Feb. 27-28, 1911

(*Concluded from page 997*)

Report of Judicial Council

The judicial council reported favorably on the applications for membership of the Medical Department of the University of Minnesota, Northwestern University Medical School, and the Medical Department of Syracuse University.

A number of recommendations made in this report were acted on in general meeting, and have appeared elsewhere.

Report of Committee on Medical Education

After considering the question of a five years' course, the committee did not deem it wise to present a schedule for consideration at this time. The present unsettled condition of medical legislation in the states of the Union, coupled with the uncertainties that exist among the colleges, has left the subject in a state of uncertainty which precludes the presentation of any schedule. The questions that confronted the committee were: 1. Shall the fifth year be a terminal one to the present four years' course and limited to clinical training, or shall a part of the time be given to the study of medical sciences in the beginning of the course? 2. In the states where legislative enactments have advanced the requirements beyond a high-school standard, no provision has been made as to whether the course shall be given absolutely in a literary college or as a preliminary course in a medical college. The trend of legislation, however, has been toward the literary training rather than increasing the medical curriculum. The difficulties in the way are that very few of the literary colleges are equipped to give a definite premedical course, and very few are willing to change their present curriculum to accommodate the medical colleges. The committee did not deem it wise for the association to adopt any prescribed schedule for a five years' course, but believes that the colleges in membership in the association should urge on their graduates the necessity for a hospital year before entering practice, and that proper inducements should be offered them to take the course.

With regard to the concentration method of teaching, no definite conclusions were given. Many colleges have already adopted the method in part, but none are ready to recommend or reject the system. At the suggestion of the committee, the matter was laid over for one year. The following resolutions were presented by the committee and adopted.

WHEREAS, The time devoted to the study of pharmacology, materia medica and therapeutics is necessarily limited, and

WHEREAS, The thorough knowledge of a small but representative group of medicaments is conducive to scientific progress in therapeutics; therefore, be it

Resolved, That the Association of American Medical Colleges commends to the attention of medical educators and examiners the limited materia medica lists published by the joint committee of the Council on Medical Education, and of the National Confederation of State Medical Examining and Licensing Boards, and the Chicago Medical Society.

Resolved, That the association urge on the colleges and the examining boards the necessity for the recognition of the principle underlying these lists, and for the early adoption by the boards of a materia medica list to which licensure examinations shall largely be confined.

The committee approved of and commended the suggestion made by the president in his address that wider cooperation of the members in the work of the association would be of benefit, and, further, that the president be authorized to appoint a representative from the association to attend all the conferences, public and private, of the Council on Medical Education.

The Fifth Year in Medicine: The Hospital Year

DR. F. F. WESBROOK, Minneapolis: In presenting the plan which has been adopted in Minnesota for a fifth or hospital year, it is apparent that the viewpoint is not simply that of the welfare of the medical college but that of the good of the people of the state. It is recognized that what may be advantageous for a state situated as is Minnesota may be quite unsuitable or impracticable for other states where conditions are radically different. In order to secure the opinion of those in Minnesota who are specially interested, written information as to the desirability of a fifth or hospital year was obtained from representatives of various hospitals, of the medical press, from influential members and officers of the Minnesota State Medical Society, members of the Minnesota State Board of Health, of the Minnesota State Board of Medical Examiners, medical officers of state institutions and other similar sources. The requirement was announced last year and goes into effect with the class entering college in September, 1911, which means that compulsory internships must be provided in 1915. This affords four years' time for the final perfection and announcement of methods. A committee of the faculty of the College of Medicine and Surgery has been appointed to perfect final arrangements. Since this committee has not yet reported, it is impossible at this time to give the details of the plan as it will be put into operation.

At present 90 per cent. of the students voluntarily take internships, so that the carrying into effect of the announced plan will mean simply the requirement of one more year of service for a few students. To make these requirements compulsory for all will, however, protect the state in a number of directions. The plan provides a further year of collegiate supervision for students before they are granted degrees. It protects the college and the state against the granting of degrees to those who may be satisfactory students but who may prove to be unfit, incompetent or unpractical in the care of patients. For the hospitals, advantage is secured in providing a stimulus to better work and sustained service on the part of interns, since the degree will be withheld unless the hospital service of the student is satisfactory to the proper authorities. For the successful carrying out of the work, the state university must establish a set of requirements as to the size and scope of hospitals, methods of organization, facilities for scientific work and case records, and such other details as may prove necessary to standardize the hospitals for the purposes of this fifth or clinical year of medical education. It is believed that hospitals so standardized will welcome affiliation with the university. The further opportunities it provides for medical and public health cooperation in the state and in furnishing an added stimulus for each hospital to become a scientific center for the physicians of the locality are apparent. The available internships in Minnesota will far outnumber the local candidates for the positions. The university hospitals, when completed, will provide a large share of the required positions. The Minnesota State Board of Medical Examiners, according to the law, does not require graduation but demands of its candidates for licensure four years of work in a recognized medical college and two years of premedical college or university work, which is equivalent to that provided by the University of Minnesota. These equivalents are determined for the Minnesota State Board of Medical Examiners, as in the case of students entering the College of Medicine and Surgery, by the Registrar of the University, or when necessary, by the Enrolment Committee of the College of Science, Literature and the Arts of the University of Minnesota. Whether the future graduates of the College of Medicine and

Surgery shall be required to take their examinations for license to practice medicine at the end of the fourth year or college course or at the end of the fifth year or hospital service has not been determined. Nor has it been decided whether it is desirable to substitute graduate research work for the hospital year in the case of those who wish to qualify, not for medical practice, but for teaching and research posts. It has seemed to the people of Minnesota that owing to the increase in present-day knowledge in chemistry, physics and biology, and in their increased applicability to the diagnosis, prevention and cure of disease, nothing less than seven years of university and clinical work should be demanded of candidates for a medical degree after graduation from an accredited high school.

DISCUSSION

DR. JOHN M. DODSON, Chicago: In schools which have the college requirement for admission, the time is ripe for the addition of the hospital year. Rush Medical College has had an optional fifth year for some time, but cannot make it compulsory because in Illinois a degree is necessary for licensure and the student must have a license in order to become an intern. The difficulty, however, is not in finding openings for the students, but to find students enough to fill the places. The chief difficulty would be on the side of the hospital, though this educational movement would be as good for the hospitals as for the students. Many hospitals are not adequately equipped and are not careful enough about having the work done properly. Interns are burdened with routine work and are obliged to look after too many patients. No intern should have more than twenty-five or thirty beds under his direction at one time, in order to make a proper study of his patients. In the University of Chicago, the intern is under the personal charge of some member of the faculty, who investigates the hospital and keeps in touch with the intern's work. The intern is also required to do some original work and present a thesis, which I regard as a most important thing, during his hospital year.

DR. F. C. WAITE, Western Reserve University: In Cleveland, we are able to place every man in a hospital, but we find that there are different grades of men as there are different grades of hospitals, and we propose to allow them to distinguish themselves in a way. The student will do a certain amount of work on which he is to report, and he must do something in the way of original work. When that is creditably done, he is to get an additional degree—Master of Medicine. His special work need not necessarily be medical, but may be laboratory or anything pertaining to his medical education. In this way we hope to induce men to go into hospitals.

DR. H. A. CHRISTIAN, Harvard University: It is desirable that every man who is to practice medicine should have practical experience in a hospital. Conditions in the east are not as they are in Minnesota. I would favor the plan outlined by Drs. Dodson and Waite. Unfortunately, the colleges of to-day are not in the position to assume the burden of a fifth year, and many schools would have difficulty in placing their students in hospitals because they do not control sufficient hospital positions. It would be well to await the outcome of the trial which is to be made by the University of Minnesota. The college may require five years, or it may furnish an incentive by offering an honorary degree for good work or make a practical degree necessary for licensure. That would give the student freedom in selecting his hospital. Many men go into laboratory work who would not be particularly benefited by hospital training, and yet the practical experience of hospital service is not to be undervalued. It seems desirable to require such a training of every man going into the practice of medicine, but not of the man preparing for work other than general practice. At the same time, I would favor the demand on the part of the licensing board of a practical hospital experience.

DR. EGBERT LEFEVRE, University and Bellevue Hospital Medical College: Everyone appreciates the need for the year of hospital work. In many localities it can only be postgraduate, as yet, and we can only recommend it as such. I am not in favor of having it made obligatory in the present state of control of hospitals. Hospitals are unwilling to consider themselves as adjuncts to the medical college, and until we have educated the hospital boards to the desirability of this close connection, we cannot require a fifth year.

What the Internist Wants the Anatomist and Physiologist to Teach

DR. BENSON A. COHOE, University of Pittsburg: The business of the medical school is to produce physicians who can heal the sick; the teachers of anatomy and physiology may direct their teaching toward practical ends or they may treat their subjects in a broadly scientific manner. An attempt has been made on the part of some medical schools to bridge over the more or less real gap that exists between the teaching of anatomy and physiology as pure science or in practical application to the clinical branches. Courses in topographic, applied, surgical and medical anatomy are offered by many schools, either as elective or as required subjects. Only two schools offer a special course in medical anatomy; one school offers a course in applied physiology; seven give courses in pathologic physiology; one school gives a course in medical technics. Clinicians desire that both anatomy and physiology be taught in a broadly scientific manner. The teaching of isolated facts of so-called practical value, at the sacrifice of fundamentals, would be a grave error. The most fitting place for the student to acquire a knowledge of anatomy for practice is in the dissecting room. The special course in medical anatomy, distinct from surgical anatomy, can be made of considerable aid, and should be taken up by the instructor in physical diagnosis. In such a course the living model should be employed.

To urge a greater practical application of physical facts is, under present conditions of physiologic knowledge and teaching, entirely unnecessary. A wise plan adopted in a few schools is to allow the student to choose some special field for exhaustive experimental work with the aim of teaching him thoroughness and initiative in his methods of work as a student and methods of precision in the study of his cases as a physician. The consensus of opinion is that that student is best prepared for the practice of internal medicine who has been trained in a school where these primary branches are taught as pure sciences, and where, not unmindful of their practical application, the imparting of the fundamental principles of these sciences is regarded as paramount, and in which no attempt is made at a short cut to the goal of medical learning by keeping practical facts ever in the foreground at the expense of pure science.

What the Surgeon Wants the Anatomist and Physiologist to Teach

DR. C. B. G. DE NANCREDE, University of Michigan: Those teaching in schools where the scientific side of the subjects under consideration are largely ignored in favor of the so-called practical aspects overlook or underestimate the fact that where the scientific side is not neglected better results are obtained. Yet it cannot be denied that there is room for improvement in securing the knowledge of anatomy and physiology which the surgeon needs. The advantages of the old system of acquiring anatomic and physiologic knowledge must not be overlooked. I would earnestly protest against curtailing the scope of instruction on these important subjects. It is not the fault of too much science, but too little, or at least the proper proportion at the proper time, and no amount of so-called teaching of practical anatomy will give the student such a spirit of catholic knowledge and interest in anatomy as a proper combination of the scientific with the miscalled practical. The surgeon wants anatomy taught with as broad a scientific foundation as feasible, supplemented by such a sharp presentation of the facts of general anatomy as will show what structures must be injured during any operation in a given region, what may be injured or destroyed, and what must not be injured, much less sacrificed. Would it not be possible to hold over the student's head the certainty that the internist and externist will hold an examination, the one on physiology, the other on anatomy, as part of the final examinations for a degree? In this way the advantages of the old and new methods would be combined. A proper knowledge of scientific as well as so-called surgical anatomy is of equal importance in the diagnosis of surgical conditions as in

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their treatment. The same is true of physiology. The surgeon needs these aids, while the teacher cannot successfully instruct when students do not possess them.

DISCUSSION

DR. E. P. LYON, St. Louis University: Anatomy and physiology should be taught from the scientific standpoint and not merely to point out the features thought to be of practical value. I believe that there should be in the medical school a man who has not the M.D. degree, but who is really well versed in one of these sciences. We need the trained anatomist rather than the physician who can teach anatomy.

DR. H. A. CHRISTIAN, Harvard University: We have too many separate courses in our curriculum to-day. It seems to me that it is not desirable to have separate practical courses in anatomy or physiology. The anatomist and physiologist must give his time to teaching the fundamental principles. The internist and surgeon must teach these subjects as applied sciences.

DR. B. D. MYERS, University of Indiana: It seems to me that applied anatomy is a very necessary part of the medical course. The student should have it as a foundation for physiology, medicine and surgery, and therefore it should be taught in the beginning of the course.

DR. J. S. FERGUSON, Cornell University: The anatomy from the side of the internist demands not so much the knowledge of the dissecting room as it does an accurate knowledge of the conditions in which the tissue exists in the body as shown first by the gross appearance; second, by its macroscopic structure, and, third, the application of the whole structure to the function of the organ.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Boston Medical and Surgical Journal

March 23

1 Popular Fallacies About Insanity. H. R. Stedman, Brookline, Mass.
2 The New England Pediatric Society. J. L. Morse, Boston.
3 When Shall We Remove Tonsils and What Type of Operation Shall We Do? E. A. Crockett, Boston.
4 Secondary Efforts to Hasten Healing After Mastoidectomy. H. O. Reik, Baltimore.
5 The Alleged Increase of Nervous Diseases. P. C. Knapp, Boston.

Medical Record, New York

March 25

6 *Injection of Drugs, Especially Salvarsan, Into the Lumbar Muscles. S. J. Meltzer, New York.
7 An Investigation of Recent Outbreaks of Typhoid in an Adirondack Camp, and the Discovery of a Typhoid Bacillus-Carrier. C. E. North, New York.
8 Principles Underlying the Surgery of the Spinal Cord and the Nerve Roots. R. S. Fowler, Brooklyn, N. Y.
9 The Roentgen Rays as a Means of Diagnosis of Carcinoma of the Stomach and Bowel. G. E. Pfahler, Philadelphia.
10 Nauheim Methods in Management of Cardiac Disease. L. F. Bishop, New York.
11 *Bilateral Fibromyoma of the Broad Ligament. E. H. Eising, New York.
12 *Diagnostic Value of Tuberculin as Shown by Nineteen Autopsies. G. W. T. Mills, Central Islip, N. Y.
13 Prophylaxis Against Uncinariasis Infection by Means of Efficient Shoes. W. F. Arnold, U. S. Navy.

6. Injection of Salvarsan into Lumbar Muscles.—On the basis of experimental observations, Meltzer offers: first, the suggestion in a general way, that in medical practice injections of drugs should be made into the lumbar muscles, especially in cases in which a rapid effective action is urgently needed. Second, he states specifically that salvarsan should be injected into the sacrospinal muscle. This muscle presents anatomically an exceptionally well-isolated, large, compact mass, densely packed with fine muscle bundles. Any solution or suspension injected strictly into this mass will remain there and not affect locally the adjacent tissues. Experimentally, Meltzer found that the absorption from this muscle is superior to that from the gluteal muscles and vastly superior to that from the subcutaneous tissue. Clinically, it was established in a limited number of cases of syphilis that salvarsan injected into this muscle exerts a fairly rapid, unmistakably beneficial influence on secondary and tertiary manifestations of syphilis and on the Wassermann reaction without causing pain and other ill effects deserving any serious considerations.

11. Bilateral Fibromyoma of the Broad Ligament.—The case reported by Eising is unique inasmuch as it is bilateral, and the masses were not cystic. Owing to the intimacy between the tumors and the body of the uterus, a hysterectomy was done, removing simultaneously the intraligamentous tumors. The patient made an uneventful recovery. The microscopic examination of the tumor showed it to be a fibromyoma. The dimensions of the entire mass including the uterus were: Laterally, 7¼ inches; vertically, 4½ inches; anteroposteriorly, 3¾ inches.

12. Diagnostic Value of Tuberculin.—Of 135 cases in which the eye test was made by Mills, nineteen came to the post-mortem room. There were ten cases of advanced disease. Of these, four cases can be considered. One gave absolutely no reaction, two gave only slight reactions, and the fourth gave a negative reaction on the first trial, a positive on the second, but this was in the same eye and is without value. The patients all died within a comparatively short time (from three days to thirty-five days), and the results correspond with the results of others and with those of the injection method, that is, in advanced or very active cases, especially just before death, the reaction is absent or slight. The other six cases were positive; all but one patient lived a considerable time beyond the test, and the disease was not in so active or advanced a stage at the time of test as in the four above described. In the one exception, the primary cause was Addison's disease. The next group included cases with scars and evidences of former tuberculosis, nothing of an active nature being present at death. In this group there were seven cases. Three of these were negative; one gave only a questionable reaction at the end of sixty hours, and three gave positive reactions. This proves conclusively, Mills says, that old, healed lesions can give positive reactions, and strongly positive ones, but at the same time shows that a negative reaction does not exclude an old lesion. The third group includes two cases with negative autopsy findings, and both gave negative reactions. Mills has found that from 20 to 25 per cent. of insane patients will react to the ophthalmo-tuberculin test, in whom no demonstrable lesions can be found, but it is probable that in all of them an old focus will be found post mortem. Therefore, a positive reaction in the absence of clinical signs is of no significance, but a negative reaction, except in advanced or very active cases, positively excludes tuberculosis. Mills regards the test as being as reliable as any other tuberculin test, more reliable than most methods, and easy of application in any class among the insane. With strict aseptic precautions, he believes the danger to be infinitesimal and so far has seen no injurious effects.

New York Medical Journal

March 25

14 The Problem of Prostitution and Venereal Diseases in New York City. F. Bierhoff, New York.
15 Simplified Treatment of Anorectal Diseases. S. G. Gant, New York.
16 Presence of Intestinal Parasites in Inmates of the Philadelphia General Hospital. R. C. Rosenberger, Philadelphia.
17 Zinc Oxid in Face Powder. S. S. Cohen, Philadelphia.
18 Hints for Mastoid Dressings. E. Amberg, Detroit.
19 Non-Suppurative Osteomyelitis. J. C. Stewart, Minneapolis.
20 Bismuth in Gastric Therapy. A. Goldman, New York.
21 Picric Acid, a Retrospect. A. Ehrenfried, Boston.
22 Vaccine Therapy. C. T. Russell, Jr., Philadelphia.

Lancet-Clinic, Cincinnati

March 25

23 Interpretation of Jaundice. C. N. Smith, Toledo, Ohio.
24 Anterior Poliomyelitis: Pathology and Bacteriology. W. H. Peters, Cincinnati.
25 Etiology of Epidemic Poliomyelitis and Its Possible Relation to Beriberi. O. v. Huffman, Cincinnati.
26 Clinical Manifestations and Medical Treatment of Poliomyelitis. M. Dreyfoos, Cincinnati.
27 Orthopedic Management of Paralysis Due to Acute Anterior Poliomyelitis. R. D. Maddox, Cincinnati.

Journal of the Missouri State Medical Society, St. Louis

March

28 Emergency Cases in Eye, Ear, Nose and Throat Work, with Suggestions for Their Care by General Practitioners. J. S. Weaver, Kansas City.
29 Convergent Strabismus. J. W. Sherer, Kansas City.
30 Progress in Surgery. H. L. Reid, Charleston.
31 Resection of the Large Intestine for Malignant Disease. C. M. Nicholson, St. Louis.

32 The Evolution of the Trained Nurse. M. A. Goldstein, St. Louis.
33 Gastroptosis. J. W. Ousley, Kansas City.
34 Modern Life vs. Longevity. E. C. Robichaux, Excelsior Springs.

American Journal of Diseases of Children, Chicago

March

35 *Physiology and Pathology of the Digestion of Fat in Infancy. F. B. Talbot, Boston.
36 *Bacteriology of the Blood in Early Life. F. S. Churchill and C. P. Clark, Chicago.
37 *Metabolism of Nitrogen, Phosphorus and the Purin Substances in the New-Born Infant. O. M. Schloss, New York, and J. L. Crawford, Troy, Texas.
38 *The Non-Specificity of the Cell Findings in the Spinal Fluid in Various Meningeal Conditions, Especially in Children. W. P. Lucas, Boston.

35. **Digestion of Fat in Infancy.**—Talbot points out that there is no doubt that large amounts of fat can do a great deal of harm to most babies. Such babies come under two classes—those which have a normal digestion and are unable to digest excessive amounts of fat, and those which have diminished powers of digestion and are unable to digest normal amounts of fat. So much attention has been paid to the few babies that are unable to digest fat, that one is apt to forget that most babies can digest fat within reasonable limits. In Talbot's experience, it has been safe to increase the percentage of fat gradually up to 4 per cent. in most normal babies whose digestive powers have not previously been lowered by gross errors in feeding or by infection. These children develop normally without any of the signs or symptoms of fat indigestion so long as their hygiene is perfect and they have no intercurrent infection.

36. **Bacteriology of the Blood.**—Churchill and Clark made sixty-nine examinations on sixty-four infants and children during life, and studied sixteen cases post mortem. The blood was obtained by the usual method—from the median basilic vein just above the elbow. In two cases of suspected typhoid it was obtained from the lobe of the ear, as recommended by Peabody. Various kinds of syringes have been used, but the Luer glass syringe has been the most satisfactory. The blood thus obtained has been mixed immediately at the bedside with various media: in most of the cases two tubes of bouillon, two of agar and agar plates have been inoculated. In five of the typhoid cases, ox bile has been used in the medium, with positive results in all. A case of suspected typhoid in which bile medium was used was negative, but proved later to be a case of tuberculous meningitis. In the sixty-nine examinations made, the authors obtained nineteen positive results. Combining Rotch's series, their own and a few scattering reports in the literature, the authors found thirty-one cases of typhoid fever, in twenty, or 66 per cent. of which, bacilli were found in the circulating blood. Furthermore, the bacilli were found as early as four days before the onset of symptoms and as late as the twenty-second day. These results were obtained with all kinds of media and at all periods of the disease. Of fifteen cases of lobar pneumonia and three of lobular pneumonia, four of the former were positive and one of the latter, the organism found being the pneumococcus in every instance. Thus in the eighty-five cases comprising their own and Otten's series, thirteen, or 15 per cent., showed pneumococci in the circulating blood.

In the group of rheumatic affections, they included cases of endocarditis, arthritis, tonsillitis and chorea, these manifestations occurring either singly or in combination with each other. There were seven cases of endocarditis; all had chronic endocarditis; in five of the cases, the cultures were taken during a febrile stage, due either to tonsillitis, arthritis, or to an unknown cause, possibly an acute exacerbation of the chronic endocarditis. There were two cases of chorea, and in both of these the temperature was normal when the cultures were taken. Cultures were negative in all seven of the cases. They examined four cases of meningitis with two positive results. In the tuberculous case the patient was examined on the tenth day of the disease as a suspected typhoid patient. One case each of pyelitis, erysipelas and acute nephritis gave negative blood-cultures. Catheterized specimens of urine from the cases of pyelitis and nephritis showed a streptococcus in the former and nothing in the latter. One case of acute lymphocytic leukemia showed the streptococcus in the blood one week before death.

They have reports on the bacteriology of the heart's blood in seventeen cases, of which thirteen showed positive results. Three cases of special interest were one each of hemorrhagic disease of the newly born, erysipelas and status lymphaticus. The hemorrhagic disease showed in the heart's blood the *Staphylococcus aureus*, the *Bacillus coli*, the streptococcus and an unidentified diplococcus midway between the pneumococcus and the streptococcus. Of the four cases with a sterile heart's blood, three were as follows: a pyelonephritis due to the *B. pyocyaneus*, an otitis with a general septicemia, but with entirely negative post-mortem results, and a meningococcic meningitis. The fourth case was endocarditis in which the ante-mortem blood was also sterile. The organisms recovered post mortem were as follows: the staphylococcus six times (*S. aureus* five times, *S. albus* once), the streptococcus eight times, *Bacillus coli* three times, the *Diplococcus lanceolatus* one time, and an unidentified diplococcus.

37. **Metabolism of Nitrogen.**—Uric acid infarct elements were present in the urine of each of nine new-born infants examined by Schloss and Crawford. They state that the uric acid output in new-born infants is both absolutely and relatively high. It is greatest during the first three days and then decreases. In cases in which the umbilical cord was ligated late, the output of uric acid was greater during the second and third days than in cases in which the cord was ligated immediately after birth. The quantity of the purin substances in the colostrum ingested is too small to explain the observed high uric acid output. The total phosphorus excretion was high during the first three days and then showed a sharp diminution. There is marked retention of phosphorus by the new-born infant. There is a moderate nitrogen retention during the first three days of life; later, nitrogen is retained in large degree. There is an inverse ratio between the leukocyte count and the elimination of phosphorus and uric acid during the first few days of life. In the light of present knowledge, the parallelism between the excretion of uric acid and phosphorus during the first three days would seem to indicate a common origin from cell nuclei. The greatest excretion of uric acid in the late ligation case suggests that the formed elements in the blood in some way serve as its origin.

38. **Non-Specificity of the Cell Findings.**—From Lucas' study, it is evident, first, that there are many conditions that give the same cytologic findings in the spinal fluid: (a) encephalitis, (b) epidemic myelo-encephalitis, (c) meningismus, (d) tuberculous meningitis, (e) syphilis of the central nervous system; second, that the presence of mononuclear cells, of lymphocytes, in the spinal fluid cannot be the basis for a diagnosis of tuberculous meningitis; third, that the recovery from animal inoculation, or the finding of the tubercle bacillus microscopically are the only positive means of making the diagnosis of tuberculous meningitis; fourth, that the study of the spinal fluid, although very important, must go hand-in-hand with more careful clinical studies of such border-lying cases as the ones shown in the different tables.

Journal of the Tennessee State Medical Association, Nashville

March

39 Action of the Arylarsonates on the Eye. E. C. Ellett, Memphis.
40 Foreign Bodies in the Eye. R. Fagin, Memphis.
41 Placenta Praevia. A. T. Clopton, Milan.
42 Sprained Ankle. D. Eve, Jr., Nashville.
43 Treatment of Acute Inflammations of the Middle Ear. G. C. Savage, Nashville.

Surgery, Gynecology and Obstetrics, Chicago

March

44 *Clinical and Pathologic Significance of Obliteration, Carcinoma, and Diverticulum of the Appendix. W. C. MacCarty and B. F. McGrath, Rochester, Minn.
45 Distention Changes in the Duodenum in Chronic Intestinal Stasis. W. A. Lane, London.
46 *Intestinal Obstruction Due to Kinks and Adhesions of the Terminal Ileum. C. H. Mayo, Rochester, Minn.
47 *Teratoma Testis and Its Derivatives. J. Ewing, New York.
48 *Osmosis as an Important Factor in the Action of Antiseptics. M. G. Seelig and C. W. Gould, St. Louis.
49 Hernial Tuberculosis. V. L. Schrager, Chicago.
50 Suppuration in the Retroperitoneal Space. R. H. Huggins, Pittsburg, Pa.

51 *Surgical Treatment of Undescended Testicle. C. Davison, Chicago.
52 *Case of Complete Amenorrhea, with Heredity as a Probable Etiologic Factor. A. R. Hoover and J. K. Marden, Marsovan, Turkey.
53 Operative Treatment of Difficult Cases of Palate Defect After Infancy. V. P. Blair, St. Louis.
54 Vertebral Fracture; Insertion of a Wire "Back-Stay." F. J. Cotton, Boston.
55 *A New Bag for the Hydrostatic Dilatation of the Cervix Uteri in Pregnant and Parturient Women. A New Hook for Decapitation. B. C. Hirst, Philadelphia.

44. **The Appendix.**—This series of cases studied by MacCarty and McGrath confirms the percentage of obliteration found in the appendix by other observers. Obliteration seems to occur as the result of an inflammatory process as shown by its histology, the time of occurrence, its irregularity of occurrence, the duration of the process, and the higher frequency in appendicitis than at necropsy is general. Many appendices become acutely inflamed during the process of obliteration and therefore an obliterated appendix should be removed, if possible. Carcinoma may occur at practically any age. It was impossible to make the diagnosis of carcinoma from the external appearance in 77 per cent. of the cases of carcinoma. The high frequency of carcinoma in obliterated or partially obliterated appendices may demand removal of all partially or completely obliterated appendices. Carcinoma of the appendix occurs in association with changes in the appendix which are related to the process of obliteration. Carcinoma of the cecum probably arises from the appendix only in a very small percentage of the cases.

46. Abstracted in THE JOURNAL, Jan. 28, 1911, p. 298.

47. **Teratoma Testis and Its Derivatives.**—The conclusion drawn by Ewing from the study of teratoma testis would seem to have important bearing on the origin of tumors in general. It seems unlikely that the conditions surrounding the genesis of this group of tumors are wholly different from those prevailing with tumors in other organs, notwithstanding the fact that in the testis one has to deal with "totipotent" sex cells not occurring elsewhere. In the testis one enocunters a wide variety of neoplasms, from the most undifferentiated, diffusely growing, highly malignant, round cell tumors, up to fully adult and harmless tissues and organs, all of which appear to have one and the same origin, the slow or rapid unfolding of original potencies of sex cells. These facts seem to Ewing wholly irreconcilable with any relation to any external parasite, but reveal in a striking manner that most important of all facts known about the origin of neoplasms—that embryonal cells possess more than any others the essential factors in the inception of tumors.

48. Abstracted in THE JOURNAL, Jan. 21, 1911, p. 218.

51. **Surgical Treatment of Undescended Testicle.**—The principle of Davison's operation depends on the direction of the spermatic vessels immediately above the beginning of the spermatic cord at the internal inguinal ring and the possibility of lowering the whole cord by the transplantation of these vessels. The operation consists of the following technic: The inguinal canal is exposed by dissection as in the Bassini operation for inguinal hernia. The testicle and cord are freed from the inguinal canal and ring and temporarily laid above the wound out of the operation field. The treatment of the posterior wall of the inguinal canal is very similar to that in the Fowler operation for inguinal hernia. After a preliminary double ligature of the deep epigastric hernia, an incision is made through the posterior wall of the inguinal canal, from the internal inguinal ring to the pubic bone just beneath the site of the external ring. This destroys the internal inguinal ring and exposes the peritoneum with the vas deferens and spermatic vessels lying on it attached by loose cellular tissue. When congenital hernia is present or the processus vaginalis is patulous, the peritoneal layer is carefully separated from the cord and cut across. The distal part is allowed to cover the cord and testicle. The opening in the peritoneum is closed. The reduplicated vas deferens is easily separated by gauze dissection from the peritoneum until the desired length is attained. The external edge of the cut transversalis fascia is sharply retracted outward, exposing the spermatic vessels for some distance. The preservation of these structures with the natural blood-supply gives the best prospect of the physiologic and functional development of the testicle.

A bed for the testicle is made in the scrotum. A silkworm-gut suture is passed through the gubernaculum testis and both ends are passed through the most dependent part of the scrotum. The testicle is located in the scrotum. The cut in the transversalis fascia (the posterior wall of the inguinal canal) is repaired. The cord is made to come through at the lower angle of the incision. The internal inguinal ring is closed. The conjoined tendon is sutured to the under side of Poupart's ligament above the cord. The fascia of the external oblique muscle is sutured to the edge of Poupart's ligament above the cord. The skin wound is closed. A strip of adhesive plaster is placed around the thigh just above the knee, with a flap on the inner side of the thigh. To this flap is fastened a thin rubber letter band. The suture through the bottom of the scrotum is tied to the rubber band with only sufficient tension to make the band taut. The usual aseptic dressings are applied. A light plaster-of-Paris body cast or starch dressing is used to prevent flexion of the thigh and intermittent traction on the gubernaculum testis. The operation should be performed by election at puberty.

52. **Complete Amenorrhea.**—The patient was a Greek woman, about 40 years old, in good physical condition, of average size and development of body, with no evidence of defects of any kind, and with good average intelligence. She made some very minor complaints suggestive of that train of nervous troubles frequently accompanying the menopause. During the examination the fact was brought out that the woman never had menstruated in her life, that she had given birth to eleven children, five of whom were living at time of this examination; further, that the grandmother of the patient had never menstruated in her life, that the mother of the patient had menstruated only once in every one or two years. Of the patient's children, one, a girl of 14 years, had not yet menstruated. The patient herself was married at the age of 15 and gave birth to her last child four years ago. Patient further said she had never had symptoms of a menstrual molimen of any sort whatever, no knowledge of when her menstrual time might be due, no malaise, no pain, nothing, in fact, saying that she simply lived like a man and didn't know what it was to be sick.

55. **Hydrostatic Dilatation of the Cervix Uteri.**—Hirst has had made two new bags in three different sizes, one a flattened hour-glass, for the effaced cervix, the other a spool-shaped bag for the uneffaced cervix; the first, 2 inches; the second, 2½ inches deep, both having minimum transverse diameters of 1, 2 and 3 inches. These bags are attached to the blood-pressure apparatus so as to measure, decrease, increase or maintain at one level the pressure exerted by them.

Virginia Medical Semi-Monthly, Richmond

March 10

56 Advantages of Appendicostomy and Cecostomy in Ulcerations of the Intestines. S. T. Earle, Baltimore.
57 Principles of Infant Feeding. E. P. Copeland, Washington, D. C.
58 Immunity—Simplicity of the Theory. W. P. Carr, Washington, D. C.
59 Injuries to the Sacro-Iliac Joint. S. B. Moore, Alexandria.
60 The Duty of the Profession. M. J. Payne, Staunton.
61 The Use of Salvarsan. T. B. Leonard, Richmond.

Mississippi Medical Monthly, Vicksburg

March

62 The East Mississippi Four-County Medical Association. R. M Boyd, Aberdeen.
63 Infantile Diarrhea. S. D. Austin, Durant.
64 Auto-Intoxication. E. J. Hudspeth, Pheba.
65 Malarial Hemoglobinuria. M. L. Pollard, Thornton.
66 Neurasthenia. J. W. Primrose, Clarksdale.

New York State Journal of Medicine

March

67 *The Ideal Medical Education for the General Practitioner and the Specialist. A. Duane, New York.
68 Localized and General Peritonitis. Shall We Ask Nature to Do Her Own Surgery? W. D. Ward, Rochester.
69 The Colon. C. E. Coon, Syracuse.
70 Rabies and Its Methods of Control in New York State. J. F. DeVine, Goshen.
71 A Case of Hodgkin's Disease. J. A. Longmore, Brooklyn.
72 Chronic Gastro-Intestinal Disorders in Older Children. F. V. Bogert, Schenectady.
73 Neglected Points in Office Practice. G. E. P. Stevenson, Penn Yan.

74 Surgery of Neurasthenics. W. E. Ford, Utica.
75 Thoughts on Diagnosis. E. Munson, Medina.
76 Supervision of the Venereally Diseased. G. V. R. Merrill, Elmira.
77 *Varicose Ulcer and a Method of Treatment. F. W. Lester, Seneca Falls.

67. **The Ideal Medical Education.**—The propositions made by Duane are summarized in the following ideal sketch of what he hopes to see obtaining in the future:

1. The ideal medical course will be based on or rather will contain a large number of humanistic studies, comprising prominently Greek, Latin, English, history, economics, psychology and drawing.
2. These humanistic studies will be pursued side by side with the technical work and will be treated as of equal importance. This coordination of the two will be best effected by a combined liberal arts and technical course leading to the degrees of A.B. and M.D. This course will comprise sixty months of actual work which can well be compressed into six years.
3. For the ordinary medical student intending to become a general practitioner, some of the technical work now required (especially in the laboratory) will be eliminated—its place being taken by clinical work or by humanistic studies.
4. The medical course will begin and end earlier. This can be effected by making the work in the preparatory schools less diffuse and more thorough, and by lengthening the terms, both in the schools and in the university, from eight months to ten. In that case the student will begin his combined course at 16, get his A.B. at about 20 and his M.D. at 22.
5. Teaching, so far as possible, will be made individual. This will probably be best attained by the appointment of numerous preceptors. Each preceptor will have charge of four or five students, and it will be his business to see that they understand their work and that they do it properly. His relations with them will be intimate and informal.
6. The student will enter on elementary clinical work early in his course and even before he receives any didactic instruction on the theory and treatment of disease.
7. Clinical work will be graded. Step by step the student will learn to handle cases for himself. Under the guidance of his clinical preceptor cases will be put under his care, whose course he will follow day by day. As his experience increases he will be accorded more responsibility and a freer hand, until at the end of his course he will be competent to diagnosticate and treat any ordinary cases of disease. When he receives his degree he will not need a supplementary hospital course in order to qualify himself for practice.
8. The university will have its own hospital, which shall be completely under its control and which shall be officered by its own preceptors.
9. The university will provide all sorts of elective courses in all branches for undergraduate and postgraduate work. The selection of these by students will be strictly regulated, and only a very limited number can be taken by any one man before graduation. After graduation it will be possible for the student to get at his university the most detailed instruction and the fullest practical work in any medical subject.
10. The student will be systematically encouraged to do original work. Efficient aids to this end will be the plan of individual teaching and of individual clinical work here advocated, together with a wise application of the elective system.
11. The thesis will be restored as a requirement of graduation. In the combined course the student will present two theses—one on a non-technical subject for the degree of A.B., the other on a medical topic for the degree of M.D. In either case the thesis will count as the equivalent of an examination in a major subject.
12. The university will give ample postgraduate instruction in all departments of medicine: (a) For the benefit of graduates, especially those aiming to be country practitioners, who without desiring to be specialists, yet wish to be more or less conversant with several specialties; (b) for graduates who wish to pursue some special line of research or get special information in any field; (c) for those wishing to become specialists.
13. To the specialist the university will give an adequate, systematic and thorough training. It will require of him: (a) That he take certain specified electives either in the undergraduate course or in the postgraduate year; (b) that he spend at least two years after graduation in general medical and surgical work (preferably in a hospital); (c) that he afterward spend a full year in postgraduate work at the university in the theory and practice of his specialty; (d) that he present a thesis on some subject connected with his specialty; (e) that he pass a satisfactory examination in the theory and practice of his specialty.
14. On his fulfilling these requirements the university will confer on him the degree of Ph.D.

77. **Varicose Ulcer.**—The method to which Lester refers is as follows: Using adhesive plaster strips in lengths of from 12 to 18 inches, and from ¾ to 1 inch wide, envelop the leg in a net-work of the plaster strips, extending entirely around the leg, from the foot to just below the knee. These strips are applied tightly enough to ridge deeply into the edematous skin, and applied spirally, in both directions, so that when completed, the leg will present a checkered appearance and look as if small squares were attempting to burst through. The first strip encircles the foot itself, and extending in a spiral manner up the leg; the second, beginning on the opposite side of the foot and crossing the first strip, proceeding on up the leg, in a spiral opposite in direction to the first, so the strips are applied, about 1 inch apart, up the leg, crossing the ulcer as they happen to come, which, having been cleansed with pure olive oil or a solution of liquor cresolis compositus or phenol (carbolic acid), and dusted with calomel, is partially or entirely strapped under. Several thicknesses of sterile gauze may be then placed over the straps covering the ulcer, and a firm muslin bandage applied. The bandage should be removed and reapplied every morning, the gauze being renewed if soiled, but the straps left on for a longer period—from two to seven or eight days. The results of this treatment have been uniformly satisfactory to Lester, as a decided improvement may be noted almost from the first, and in a period of from two to four weeks, the ulcer is closed.

Medical Herald, St. Joseph

January

78 Simultaneous Rupture of the Quadriceps Extensor Tendon of One Knee, and of the Tendo Achillis of the Other Leg. J. E. Summers, Omaha, Neb.
79 A Table for Cystoscopic Examinations as Well as for General Purposes. T. M. Paul, St. Joseph, Mo.
80 The Tuberculous Factor in Phlyctenular Keratitis. J. M. Patton, Omaha, Neb.
81 Differential Diagnosis of Duodenal Ulcer and Gall-Stones—Einhorn Duodenal Pump. J. M. Bell, St. Joseph, Mo.
82 Prevention and Treatment of Septic Infections of Extremities. E. H. Ochsner, Chicago.
83 "Landry's Paralysis;" Acute Ascending Paralysis. C. B. Hardin, Kansas City, Mo.

February

84 *Convergence Insufficiency; Its Importance to the General Practioner, and Its Successful Modern Treatment. J. M. Banister, Omaha, Neb.
85 Artificial, Theoretical and Practical Infant Feeding. B. W. Christie, Omaha, Neb.
86 Prognosis in Heart Disease. J. H. Darey, Sioux City, Iowa.
87 Care of Mother and Child After Confinement. C. W. Pollard, Omaha, Neb.
88 The Indiana Plan. G. H. Bogart, Brookville, Ind.
89 Treatment of Syphilis with Salvarsan from Observation Made in Clinics in Berlin. G. A. Lau, St. Joseph, Mo.
90 Treatment of Some of the Principal Diseases of the Eye. B. Pitts, St. Joseph, Mo.
91 A Case of Carcinoma of the Breast Treated by the Roentgen Ray. J. N. Scott, Kansas City, Mo.

84. Abstracted in THE JOURNAL, March 26, 1910, p. 1075.

Canadian Medical Association Journal, Toronto

March

92 Malignant Disease in the Neck. A. Primrose, Toronto.
93 Experiences with Salvarsan. J. G. Adami, R. P. Campbell and F. S. Patch, Montreal.
94 Tuberculin in the Diagnosis of Tuberculosis. J. C. Meakins, Montreal.
95 Food Standards. A. McGill.
96 The Inflammatory "Pelvic Mass." W. W. Chipman, Montreal.

St. Paul Medical Journal

March

97 Municipal Sanitation with Special Reference to Present Conditions in St. Paul. B. Foster, St. Paul.
98 Mechanism and Significance of the Reflexes. L. M. Crafts, Minneapolis.
99 Advances and Improvements of the Medical Profession. E. Klaveness, Sioux Falls, S. Dak.

Journal of the Michigan State Medical Society, Battle Creek

March

100 *Tuberculosis in Children: Some Aspects of the Problem. H. M. Rich, Detroit.
101 Rupture of the Bladder. R. C. Stone, Battle Creek.
102 Lessons from Three Cataract Extractions. W. R. Parker, Detroit.
103 Non-Operative Treatment of Varicose Veins of the Legs. W. A. Hackett, Detroit.
104 Cerebrospinal Meningitis. C. H. Johnston, Grand Rapids.
105 *Immediate Versus Deferred Operation in Intra-Abdominal Hemorrhage Due to Tubal Pregnancy. H. W. Hewitt, Detroit.
106 *Interpretation of Gross Findings in the Urine. W. E. Keane, Detroit.

100. Abstracted in THE JOURNAL, Oct. 29, 1910, p. 1586.
105. Abstracted in THE JOURNAL, Nov. 5, 1910, p. 1676.
106. Abstracted in THE JOURNAL, Oct. 22, 1910, p. 1492.

Western Medical Review, Omaha

March

107 Management of Strangulated Hernia. B. B. Davis, Omaha, Neb.
108 Drugless Healing. L. A. Merriam, Omaha, Neb.
109 Present-Day Problems in Acute Intestinal Obstruction. J. S. Welch, Lincoln, Neb.
110 *A Case of Poisoning Following the Use of Coal-Tar Derivatives. A. P. Overgaard, Fremont, Neb.
111 *Normal Saline Solution Given Through a Biliary Fistula. M. J. Ford, Omaha, Neb.

110. **Poisoning Following Use of Coal-Tar Derivatives.**—For four years, Overgaard's patient had been a constant user of acetanilid, and would use as many as a dozen 5-grain tablets in twelve hours. She procured 1,000 at a time, and in the four years had used several thousand. She suffered from severe

headaches and vomiting attacks lasting for two or three days and as a rule she would have to be in bed. About two years ago, she began the use of morphin together with the acetanilid and is now using as much as 2 grains of morphin a day to get relief. When first seen by Overgaard, she had been in bed for six weeks, was emaciated, no appetite on account of persistent vomiting, headache always present, slightly jaundiced with marked tenderness and dulness over the gall-bladder region, very constipated and suffering from tympanitis. Dr. A. F. Jonas drained the gall-bladder of dark, thick, stringy bile. She made a good recovery from the effects of the operation, and in three weeks was up and around a little. She stopped the use of any drug and in a couple of months was doing her work and feeling fine. In about a year and a half Overgaard was again called to see her and found her in bed suffering from headache, vertigo, faintness, tinnitus, psychic irritability, dyspnea, palpitation and edema. There was also tenderness over the gall-bladder region and large quantities of bile and mucus were being vomited. She was using coal-tar products and morphin to relieve the pain. Her lips and finger nails were blue. She had lost about 20 pounds in weight during from four to six weeks. Overgaard says that the thing for the profession to do is to enlighten the public on the bad results arising from the use of these coal-tar products and to discourage the continued self-medication of the laity by the use of all kinds of headache tablets and powders.

111. **Normal Saline Solution Given Through a Biliary Fistula.**—Ford reports a case of cholecystitis in which 2 pints of normal saline solution were given daily for a week through a biliary fistula. A diagnosis of gall-bladder disease was made from the findings. Ford operated. The gall-bladder was distended to twice its usual size. One inch from the fundus was what appeared to be a sort of a diaphragm of very thick adhesions—the trocar would not go through without using considerable force. There were no gall-stones, but the gall-bladder was full of black, tarry, ropy bile. Ford curetted the gall-bladder—put in a rubber tube drain and ordered the patient put to bed in Fowler's position and given normal saline by rectum. There was practically no drainage, just a little bloody pus. The patient grew persistently weaker, and could not retain saline by bowels which were moving involuntarily. Four days after the operation, Ford started to give saline solution through the drainage tube in the gall-bladder. It took three hours for the pint of normal saline to run in. Some time later the patient had considerable distress in the stomach which was relieved by lavage with a solution of sodium bicarbonate. On the following day 2 pints of saline solution were administered through the tube into the gall-bladder, one in the morning and one in the afternoon. The patient continued to improve from the first time the saline was given by the biliary fistula. The improvement was continuous and as the patient gained in strength the bile began to flow through the fistulous opening and continued for about four weeks when the fistula closed of its own accord.

Kentucky Medical Journal, Bowling Green

March 1

112 Criminal Abortion. M. H. Sutherland, Harrodsburg.
113 Reduction of Infant Mortality, Especially in Rural Districts. E. L. Gowdy, Campbellsville.
114 Remittent Fever. E. L. Palmore, Hiseville.
115 Endocarditis. S. M. Hopkins, Demossville.
116 *Surgery of Musculospiral Paralysis. A. H. Barkley, Lexington.
117 Tuberculosis. R. N. Filiatrean, Knottsville.
118 Leukemia. M. A. Yelton, Falmouth.
119 Abortion. J. L. Wyatt, Buffalo.
120 Uncinariasis in the South and Its Neglect. W. F. Arnold, U. S. Navy.
121 Differential Diagnosis in Gastric Disease. J. H. Chrisman, Owenton.
122 Myocarditis. O. W. Brown, Lenoxburg.
123 Empyema Treated Without Rib Resection. A. M. Glass, Booneville.
124 A Case of Advanced Syphilis Treated with Salvarsan. J. A. Stuckey, Lexington.
125 Scorbutus. N. A. Jett, Brooksville.
126 A Peculiar Case of Dystocia. J. S. Tatum, Harreldsville.
127 Biographies of Members of the Central Kentucky Medical Society and Report of Its Last Meeting, Nov. 4, 1909. J. G. Carpenter, Stanford.
128 The Physician as an Educator and as a Sanitarian. G. J. Herman, Newport.
129 Typhoid and Its Proper Treatment. H. H. Stallard, Hellier.
130 Chronic Gastritis. T. O. Meredith, Burgin.

March 15

131 Pelvic Inflammation. L. Bloch, Louisville.
132 Atypical Pneumonia. W. F. Boggess, Louisville.
133 Chronic Prostatitis. H. Bronner, Louisville.
134 Rectal Cancer with Colostomy. G. S. Hanes, Louisville.
135 Fatty Tumor of the Gum. B. F. Zimmerman, Louisville.

116. Abstracted in THE JOURNAL, Oct. 1, 1910, p. 1221.

Ohio State Medical Journal, Columbus

March

136 Indications for Nephrectomy. E. O. Smith, Cincinnati.
137 *Pulmonary Manifestations of Syphilis. R. P. Daniels and H. W. Dachtler, Toledo.
138 Treatment of Mucous Colitis. W. Teachnor, Columbus.
139 *Phases of the Surgical Treatment of Gastric Ulcer. W. D. Haines, Cincinnati.
140 The Borderland of Sprain, Fracture and Periosteal Inflammation After Trauma. W. G. Stern, Cleveland.
141 What Should Be the Attitude of the Profession Toward the Non-Medical Cults? C. W. Moots, Toledo.

137. Abstracted in THE JOURNAL, July 16, 1910, p. 246.

139. Abstracted in THE JOURNAL, May 28, 1910, p. 1809.

Military Surgeon, Washington, D. C.

March

142 Blank Forms for Internal Administration of Army General Hospitals. T. L. Rhoads, U. S. Army.
143 Camp Wikoff, Montauk Point, New York, in 1898. I. C. Brown, U. S. Army.
144 Prevention of Typhoid. F. R. Keefer, U. S. Army.
145 *Ethics, Scope and Prerogative of the Army Medical Officer. L. M. Maus, U. S. Army.
146 Report on an African Trip. W. W. Roberts, U. S. Army.
147 A Case of Rabies at Camp Overton, Mindanao, P. I. O. Weston, U. S. Army.

145. Abstracted in THE JOURNAL, Dec. 17, 1910, p. 2173.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

March 4

1 Dilated Stomach. A. F. Hertz.
2 Prevalent Rain-Bearing Winds and the Milk Supply of Manchester During the Years 1896-1909. W. Gordon.
3 Diagnosis of the Commoner Causes of Chronic Jaundice. P. J. Cammidge.
4 The Urines of Marathon Runners. G. Chambers.
5 Intussusception of the Appendix. J. W. Thomson.
6 *Chronic Traumatic Mastitis. G. L. Cheatle.
7 *An Unusual Form of Perineal Hernia. A. G. Atkinson.

March 11

8 Common Injuries of the Knee-Joint and Their Consequences. W. A. Lane.
9 Injuries of the Lower End of the Humerus. C. H. Fagge.
10 Rheumatoid Arthritis. J. C. Briscoe.
11 Two Cases of Pernicious Anemia Treated by Salvarsan. B. Bramwell.
12 Operations for Calculus in the Male Bladder. W. F. Haslam.

3. **Chronic Jaundice.**—By a timely and correct diagnosis, such as is possible from a careful consideration of the clinical history and symptoms, and the information to be obtained by thorough analysis of the urine and feces, Cammidge says the complications and sequelæ likely to arise in cases of chronic jaundice—serious disease of the pancreas, cholangitis, cirrhosis of the liver, etc. may be avoided. Delay is always dangerous, and it is useless to await developments until the case is of interest only to a pathologist. The cause of the jaundice must be determined at the earliest possible moment and the treatment be based on the conclusion arrived at. A diagnosis of gall-stones obstructing the bile duct, made on the clinical data and confirmed by an examination of the excreta, calls for immediate operation, as the only likely spontaneous cure is Nature's crude and dangerous remedy of making a fistula by which the stone may escape into the duodenum, or elsewhere. Catarrhal jaundice frequently clears up spontaneously, but if after six weeks of rest in bed, with dieting and medical treatment, the jaundice persists and the urinary "pancreatic" reaction is positive, it is advisable to invoke the aid of the surgeon to perform a short-circuiting operation to avoid further damage to the pancreas. In the last stages of malignant disease operation is only likely to shorten the brief span of life still left to the patient, but in the earlier stages much may be done to make existence more bearable by a cholecystotomy or cholecystenterostomy to relieve the intolerable itching of which complaint is chiefly made. At the same

time it is well to bear in mind that in many cases diagnosed clinically as inoperable carcinoma of the pancreas, it has been shown on chemical examination of the urine and feces, and by the after-history, that the patients were suffering from chronic inflammation of the gland capable of retrogression.

6. **Chronic Traumatic Mastitis.**—As the main causes of this type of mastitis, Cheatle condemns the corset which has not been made on hygienic principles. Some patients realize that the corsets are causing the trouble, and come to the physician with the bones and steels bent, broken or removed; or have already adopted a form of corset designed to remedy the condition, after having consulted a corset maker. Most of the women, however, have no idea of connecting the cause and effect.

7. **Perineal Hernia.**—The hernia in Atkinson's case seems to have arisen from an abnormally deep vesico-uterine pouch, passing down between the urethra and vagina. From this the sac passed forward through the posterior wall of the urethra, being then extruded through the urinary meatus.

Lancet, London

March 11

13 *Association of Disease of the Mouth with Rheumatoid Arthritis and Certain Other Forms of Rheumatism. K. W. Goadby.
14 Principles on Which the Treatment of Resting Conditions of the Skeleton Is Based. W. A. Lane.
15 Education of the Deaf. M. Yearsley.
16 *Duration of Infectivity of Typhoid. A. Harris.
17 Sporotrichosis. E. von Ofenheim.
18 Treatment of Rodent Ulcer by Calcio-Phosphate of Uranium. A. Churchward.
19 *An Unusual Case of Intestinal Obstruction. E. A. Wright.
20 Infantile Scurvy in a Child Fed on Sterilized Milk. F. Brachi.
21 A Forgotten Prophecy of the Microbic Theory of Infectious Disease. C. Singer.
22 The Question of Compulsory State Insurance of Employers' Liability Under the Workmen's Compensation Act, 1906. A. Benthall.

13. **Disease of the Mouth and Rheumatoid Arthritis.**—In the diseases of the jaw, especially rarefying alveolar osteitis, Goadby has found a streptobacillus, pure cultivations of which inoculated into or around the knee-joints of rabbits have produced symptoms similar to and indistinguishable from arthritis deformans. In such disease of the mouth and jaws the treatment of the disease locally and by means of autogenous vaccine prepared from the streptobacillus has been associated with amelioration and disappearance of the arthritic symptoms in a greater number of instances than can be ascribed to fortuitous coincidence. Of patients so treated, twenty-three were cured, fourteen relieved, four received no benefit and six are still under treatment.

16. **Duration of Infectivity of Typhoid Fever.**—The stools of twenty-seven patients were examined by Harris and cultures made during the convalescent stage after the temperature had reached normal. In cases showing a positive result weekly examinations were made until a negative result was obtained. The results obtained are exceedingly variable and permit of no generalization or conclusions; it is shown, however, that the persistence of infection bears no relation to clinical signs; a patient, who showed typhoid bacilli in the stools seventy-eight days after the temperature was normal, had a mild case with little diarrhea. A consideration of the table tends to show that carriers do not have such a marked influence on the spread of the disease as might be thought possible, because "return" cases of typhoid are very rare, and as most hospitals discharge their patients without a bacteriologic examination of the stools a fair proportion must be sent home with typhoid bacilli still present in the intestines.

19. **An Unusual Case of Intestinal Obstruction.**—Wright's patient was suffering severely from symptoms suggestive of a fecal impaction. Abdominal examination revealed the presence of a hard rounded lump in the right epigastric region of about the size of an orange. This was tender to deep pressure, and did not move with respiration. By rectum a hard, small, non-tender movable mass could be felt. The patient gave a history of a similar attack a year ago which was relieved by enemata. She had suffered from constipation with frequent attacks of vomiting for some years. The abdomen was opened. The lump previously felt was explored with the hand and found to be hard, smooth and rounded, and to extend a considerable distance upward and to the left. A firm lump about 3 inches long was found completely blocking the lumen of the small intestine; beyond this point the intestine, large and small, was quite empty. The obstructing mass was found to be hair, tightly matted together. The other lump was then examined and found to be in the stomach, which organ it completely filled. This also was found to consist of an enormous mass of tightly matted hair. The patient rallied well from the operation, and her condition on the following day was much improved. Six days after the operation the patient died. For many years she had been in the habit of pulling and biting at her hair when reading or when her attention was otherwise engrossed, showing that the habit had become almost an unconscious one.

Clinical Journal, London

March 8

23 When to Examine and What to Look For. A. E. Giles.
24 Modern Discoveries Regarding Plague. F. M. Sandwith.

Journal of Tropical Medicine and Hygiene, London

March 1

25 Experiments to Ascertain if Antelope May Act as a Reservoir of the Virus of Sleeping Sickness (Trypanosoma Gamoiense). D. Bruce, A. E. Hamerton and H. R. Bateman.

Indian Medical Gazette, Calcutta

February

26 Sand-Fly Fever in Chitral. F. Wall.
27 *A Speculation on Diabetes Mellitus. T. H. Foulkes.
28 *Cirrhosis of the Liver. L. Rogers.
29 Pancreatic Cysts. O. G. Hassan Suhrawardy.
30 Treatment of Kala-Azar by Hypodermic Injection of a Solution of Quinin Sulphate. E. Muir.
31 Method of Performing Gastrojejunostomy and Intestinal Anastomosis by a Single Row of Sutures. J. R. Roberts.

27. **Diabetes Mellitus.**—The general idea of diabetes, according to Foulkes' theory, is as follows: There are two causes to consider. First, the cause of the disease, which is assumed to lie in the upper part of the intestine, mainly, no doubt, in the duodenum, preventing the absorption of sugar. Whether it is bacterial, hereditary, inherent weakness in the cells, or poisoning by dextrose, can only be guessed at. It is treated by dieting and, in suitable cases, may be cured in this way. Second, the cause of the symptoms, which is the result of the above, and is the one directly attacked by the treatment described. The sugar in the urine is entirely endogenous. The sugar formed from food is not utilized but acts as poison on the intestinal cells. It may be absorbed as alcohol, which would be a grim irony of fate in high caste men who are professedly among the most teetotal men on earth. It seems likely that a diabetic who developed a fistulous opening between the urinary tract and the intestine would become partially self-regulating, like a shunt-wound dynamo. Little mention is made of the pancreas by Foulkes. He assumes that the pancreas is not concerned in diabetes. It is true that if the pancreas is removed in animals, or if, in man, the pancreas is so grossly diseased as to amount to removal, a mimicry of diabetes occurs. Taking this fact together with the results shown of glucose injection in diabetes, it may well be assumed, he declares, that the normal action of the internal secretion of the pancreas is to react with dextrose in the liver acting there as a restrainer of the ferment action and allowing the liver to fix the dextrose as glycogen. The effect of removal or gross disease of the pancreas would be to interfere with glycogen storage in the liver, so that the circulation would be flooded with sugar after every meal with consequent glycosuria and starvation. It may be remembered that all the venous blood of the pancreas passes straight to the liver. The cases brought forward are few. The results, however, in every case are so constant and similar that it is believed by Foulkes that they are sufficient to exclude coincidence.

28. **Cirrhosis of the Liver.**—Rogers' conclusions are based on a careful study of necropsies: 1. Cirrhosis of the liver is several times as frequent in Calcutta among the natives of India as it is in a temperate climate; but is not especially common among European residents there. 2. Although the Mahomedans are forbidden the use of alcohol by their religion, cirrhosis of the liver is only slightly less frequent

among them than in Hindus in proportion to their relative numbers; not more so in fact than in the cases of abscess of the liver, in which alcohol is only a predisposing and not an exciting cause. For this and other reasons the increased frequency of hepatic cirrhosis in India cannot be explained on any theory which makes alcohol the most important exciting cause of cirrhosis. 3. One-fifth of the cases in Calcutta are secondary to kala-azar, being partly of the typical intralobular form described by Rogers, but also commonly of the ordinary portal or multilobular type or both combined. 4. There is no evidence that malaria ever produces a clinically evident cirrhosis of the liver in Calcutta. 5. Hanot's hypertrophic or biliary cirrhosis is rare in Calcutta, but a form of infantile biliary cirrhosis described by Gibbons of unknown origin is encountered. 6. In Calcutta, cirrhosis of the liver is so frequently associated with chronic dysentery, usually of the amebic type, as to suggest that the fibrosis of the liver is secondary to the bowel ulceration. 7. Chronic inflammatory changes due to bacterial infection or toxic absorption through ulcers of the gastro-intestinal tract is also a likely cause of cirrhosis of the liver. 8. Leukocytosis is common in the ordinary type of cirrhosis of the liver, a high degree being of very bad prognostic significance. On the other hand a leukopenia points to a cirrhosis being secondary to kala-azar.

Australian Medical Journal, Melbourne

January 20

32 A Review of Recent Clinical Methods in the Investigation of Cardiovascular Disorders. R. R. Stawell.
33 The Sino-Ventricular Connecting System of the Heart. J. H. Anderson and G. Lamble.
34 Anatomy of the Sino-Ventricular Connecting System of the Heart. W. D. Robertson.
35 Meningitis Associated with a Bacterium of the Influenza Group. O. A. Sayce.
36 Microscopic Diagnosis of Tumors at the Time of Operation. A. J. Trinca.
37 Skin Disinfection. W. H. Brown.

Practitioner, London

March

38 Cancer and the General Practitioner. A. P. Gould.
39 Obligation Imposed on the General Practitioner by Development of Experimental Investigation of Cancer. E. F. Bashford.
40 Diagnosis and Treatment of Cancer of the Breast. H. M. Rigby.
41 Absorption and Excretion of Drugs. W. E. Dixon.
42 *Clinical Uses of Sodium Salicylate. A. C. Stark.
43 Cases of Infective Endocarditis. C. O. Hawthorne.
44 Insidious Development of Aortic Valvular Disease in Cases of Atheroma. C. W. Chapman.
45 Vaccine Treatment of Seborrhea of the Scalp. A. F. Savill.
46 Vaccine Treatment of a Case of Malignant Endocarditis (or Pneumococcus Septicemia). S. A. Henry.
47 Nervous Phenomena Occurring in Chronic Mucous Colitis. J. Liddell.
48 Spengler's Differential Staining Methods for Tubercle Bacilli. R. C. Styles.
49 Athletics and the Medical Man. A. Abrahams.
50 Dr. Johnson and the Medical Profession. J. D. Wynne.

42. Clinical Uses of Sodium Salicylate.—Stark believes that there are some feverish conditions in which sodium salicylate appears to exert a specific effect. The first is nasal catarrh. The best prescription for it is, he believes, the following:

℞		gm. or c.c.
Sodii salicylatis	gr. x.	66
Spiritus ammoniæ aromatici	ʒss	2
Tincturæ belladonnæ	mv	33
Aquæ chloroformi	ad ʒi	16

M. Sig. Every four hours.

In the most common type of influenza, with a very sudden onset, severe headache, acute pain in the limbs and a furred tongue, sodium salicylate is the best drug to use. Stark affirms, from frequent and severe personal experience of the disease, that to give quinin to a patient who presents the above clinical picture is to add to his discomfort. After a mercurial purge, administration of the following cuts short the disease in two days:

℞		gm. or c.c.
Sodii salicylatis	gr. x.	66
Potassii bicarbonatis	gr. x.	66
Tincturæ nucis vomicæ	mx.	66
Aquæ chloroformi	ad ʒi	16

M. Sig. Every two or four hours.

It is a common experience of many practitioners to meet with cases, especially in children, in which the only symptom is sudden high temperature. Careful examination reveals nothing abnormal, and past and future history shows no cause for the pyrexia. Some of these cases are possibly rheumatic, but Stark believes that a considerable number are due to the absorption of some pyrexia-producing body from the intestinal contents. At all events, the administration of a few grains of sodium salicylate quickly restores the patient to the normal state.

Stark has used salicylate of sodium in six cases of comparatively mild forms of puerperal fever with most successful results. It was combined with strychnin to avoid the depressing action on the circulation. For the diarrhea and sickness of young children salicylate of sodium is almost a specific. Two grains may be given, in water, to a child of nine months, and repeated at intervals of from two to four hours according to the severity of the disease. The drug may be made palatable by the addition of a little saccharin and chloroform water. Vomiting in most cases ceases after the first two doses, and the stools rapidly become less offensive and abundant. There is no after constipation, as is so often the case when astringents are used, and the characters of the motions are not masked, as they are by the use of bismuth salts. Sodium salicylate is probably the most powerful of all the hepatic stimulants, forcing the liver to secrete more bile, rendering this more fluid, and assisting its absorption. These actions may explain its great value in relieving so-called "bilious headache." The following, taken at the onset of the headache, generally gives rapid relief:

℞		gm. or c.c.
Sodii salicylatis	gr. x.	66
Potassii bromidi	gr. xx.	1 33
Aquæ chloroformi	ad ʒi	16

M. Sig. Every four hours.

In mumps attended by rise of temperature and severe pain, Stark considers sodium salicylate the most effective remedy; he has used it freely in two epidemics of mumps and has found it most valuable. Its excretion in the saliva, with its antiseptic action on the unknown bacteria of the disease, probably accounts for its action. It should be combined with an alkali as in:

℞		gm. or c.c.
Sodii salicylatis	gr. v.	33
Sodii bicarbonatis	gr. v.	33
Saccharini	q.s.	
Aquæ	ad ʒss	8

M. Sig. Every two to four hours.

Annales de l'Institut Pasteur, Paris

February, XXV, No. 2, pp. 97-192

51 *Experimental Research on Exanthematous Typhus. C. Nicolle, A. Conor and E. Conseil.
52 Collodion Filters for Colloidal Substances. J. Duclaux and A. Hamelin.
53 Factors in the Toxicity of Bacteria. I. C. Nicolle and G. Loiseau.
54 *The Bran of Rice in Prevention and Treatment of Beriberi. (Le son de paddy dans la prophylaxie de béri-béri.) Bréaudat and Denier.
55 Inherited Immunity of the Goat to Ricin. C. Truche and E. Alilaire.

51. Exanthematous Typhus.—Nicolle declares that the bodies described by Ricketts and Wilder are too rare in the blood of patients to be considered as the pathologic agents of exanthematous typhus. The disease can be transmitted to monkeys, he asserts, by inoculation of a patient's blood directly or by the intermediation of the flea. The virus is transmitted by the flea-bite from the fifth to the seventh day after the flea has fed on the infected individual. This time limitation seems to indicate, he states, that the unknown microbe of exanthematous typhus undergoes some special phase of development in the body of the flea, and his research seems to indicate, he believes, that the flea is the exclusive intermediate host. The blood of the infected person is virulent two days before the onset of fever and for two days after defervescence; the flea is thus able to infect itself not only on a febrile patient but on those entering and leaving the febrile stage. An active agglutinin for the micrococcus of Malta fever is found in the serum of patients with exanthematous typhus. Other facts brought out by the research reported are the susceptibility of children to the disease, its mildness in them and the immunity apparently enjoyed by young infants. It is possible that children may play an important part in the preservation of the virus, and this should not be forgotten in

prophylaxis. The cases of afebrile typhus which have been occasionally reported he regards as merely the stage of convalescence from an attack, the febrile phase of which escaped recognition. Another point which increases the difficulty of differentiating exanthematous typhus is its liability to be confounded with the eruptive forms of malaria.

54. **Rice Bran in Prevention and Treatment of Beriberi.**—Bréaudat and Denier report from the Pasteur institute at Saigon in Indo-China that rice bran seems to remove the cause of beriberi and prevent its development. They gave the bran in the form of pills mixed with syrup and peppermint, about 40 gm. of the bran being thus added daily to the ordinary food. It never caused any digestive disturbance while it had a marked curative action, equal to that of any drug. There were 210 native soldiers who took the pills in prophylaxis including thirty-seven who had had beriberi, and there were forty-nine who had had it in 311 controls. Between September 15 and February 1 no cases of beriberi developed among those taking the bran, while 17.4 per cent. of the controls had it. The action of the bran was less pronounced in those who had already had the disease.

Annales de Médecine et Chirurgie Infantiles, Paris

March 1, XV, No. 5, pp. 145-176

56 *Unrecognized Diphtheria. (Les diphtéries méconnues de l'enfance.) E. Terrien.
57 Poliomyelitis with Meningeal Symptoms. L. Benard and Maury.
58 Streptococcus Origin of Scarlet Fever. M. Thomas.
59 Insufficiently Fed Infants. (Troubles causés par l'hypoalimentation des nourrissons.) G. Variot.

56. **Unrecognized Diphtheria.**—Terrien thinks that in many cases of so-called malignant diphtheria the infection had been installed for some time in a more inaccessible region and had thus escaped discovery; only when it reached the throat was it recognized, and then it was in such full swing that no means were able to arrest it. Glatard, in 1902, was able to collect 333 cases of primary nasal diphtheria, in most of which the infection had escaped recognition. Faseuille has recently called attention to its frequency in infants, and warns that any rather severe and persisting coryza in an infant should suggest diphtheria, even when no false membranes can be discovered. Kuhn, Gallo and Abrand have each encountered a case in which the diphtheria persisted almost latent in a babe; one had only slight fever and sore throat but it finally sneezed a tube of membrane out of its nose. Schaps found a serous, blood-stained discharge from the nose and excoriation of the upper lip as the only manifestation of diphtheria in nine infants. In four cases reported by Dupont the membrane formation was restricted to the nasal fossæ and did not invade the throat. Adenoid vegetations may also be the primary and the sole seat of the diphtheria process; Rocaz has encountered ten such cases. This primary and localized diphtheritic adenoiditis seems to be unusually virulent; the extent of absorbing surface is exceptionally large and the general symptoms are severe, in contrast to the mild general symptoms with the primary nasal form. The unusual gravity, the rapid course, the difficulty of recognizing the affection, all conspire to enhance the danger of diphtheritic adenoiditis. It should be suspected when the child shows signs of adenoiditis, earache and hoarseness, the nose being stopped up but without the discharge of coryza. Then follow the general symptoms, such as extreme lassitude and pallor, swelling and tenderness of the glands in the neck and the rapid pulse even when there is no rise in temperature. The laryngoscope or bronchoscope was the only means of detecting the process in some of the cases cited. For bacteriologic examination the material must be taken from behind the velum, through the nose, inoculating several tubes.

Bulletin de l'Académie de Médecine, Paris

February 21, LXXV, No. 8, pp. 217-318

60 *Classification of Female Pseudohermaphrodites. Magnan and S. Pozzi.
61 *The Plague in Astrachan and in Manchuria. A. Chantemesse and Borel.
62 Malformations of the Breast and Tumors. (Malfaçons embryonnaires de la glande mammaire. "Dysembryoplasies" et "dysembryoplasmomes" du sein.) M. Letulle.

February 28, No. 9, pp. 319-334

63 *Preventive Vaccination Against Typhoid. H. Vincent.
64 Prophylaxis of Small-Pox in French Colonies in Africa and Indo-China. Kermorgant.

60. **Female Pseudohermaphrodites.**—In the case reported, the patient had been brought up as a man and was apparently happily married, when an ovarian sarcoma had to be removed. In discussing the case, Magnan and Pozzi suggest a classification for pseudohermaphrodites based on the feminine or masculine aspect. They suggest the term gynoid for the former and android for the latter, prefixing "andro" or "gyn" to designate the histologic sex. The irregular hypospadic andro-gynoid type is the most frequent, and is readily confirmed by discovery of the testicles. The gyn-android type is rare; the case reported is of this type with inversion of the genital sense.

61. **The Plague.**—Chantemesse compares the conditions in Manchuria now with those in an epidemic of plague thirty-two years ago in southern Russia. In the latter epidemic some villages along the Volga were affected with a strange disease, and after the death of the physicians and local authorities the terror-stricken peasants took matters into their own hands, shutting off the infected houses and permitting no one to enter or leave them or to enter the villages from without. These rude, illiterate peasants, in 1878, took instinctively the proper measures in regard to isolation, and the epidemic soon died out from lack of fuel. The dead were hauled with long-handled hooks to the pits dug for them, and any one suspected of having been in contact with the sick was not allowed out of the house for twenty days. By the time the national authorities took a hand in quarantining the villages the epidemic had died out after having caused 500 deaths. Far different are the conditions in Manchuria to-day. The people hid their sick when the plague first appeared among them, and thus the epidemic got a firm foothold in many places before its existence became known to the authorities. Trappers in the region east of Lake Baikal had collected a number of skins of the land otter, or tarabagan, common along the rivers of Siberia. Schottelius of Stuttgart, Germany, called attention some time ago to the peculiar susceptibility of this animal to the plague. [*Public Health Reports*, March 10, states that it is a marmot, related to the American woodchuck and the prairie dog, and that 10,000 trappers were in the field last year to get the skins.] Chantemesse says that the existence of the plague among these animals was known and also the fact that it assumed the pneumonic form in them. The hunters in question had collected a number of pelts; in October these hunters developed plague and it spread among the Chinese inhabitants of the region. The latter fled eastward in their fright, seeking refuge in Manchuria but concealing the fact of the infection until the epidemic had assumed extensive proportions. The infection is extremely virulent; Haffkine has been in Manchuria since December and he states that he has not known of a single recovery. None of the 130 persons he has vaccinated there against plague has contracted the disease although constantly exposed—omitting those vaccinated after the infection was already installed.

One of the principal questions still to be decided is the length of the incubation period. Winter is the plague season. Another remarkable feature of the plague, Chantemesse adds, is that when the disease is once installed in a place it seems almost impossible to eradicate it. In Egypt, for instance, notwithstanding the strictest measures, the disease maintains its foothold, and the number of cases has increased constantly from 99 in 1899 to 640 in 1906, and since then from 500 to 1,500 cases yearly, with 118 cases already in 1911, but the type of plague is mild there. In regard to the destruction of rats on shipboard, Chantemesse remarks that the results are exactly proportional to the zeal and conscience of those doing the work and proportional to the strictness of the supervision over them by the authorities in charge.

63. **Preventive Vaccination Against Typhoid.**—The Académie formally adopted a resolution advocating preventive antityphoid vaccination under certain conditions. The text of the resolution was given in the Paris Letter in THE JOURNAL, February 25, page 601.

Lyon Chirurgical, Lyons

March, V, No. 3, pp. 209-300

65 *Treatment of Megacolon in Adults. G. Gayet and M. Patel.
66 *Autoplastic Method of Treating Hypospadias. Cantas.

65. **Hirschsprung's Disease in Adults.**—Gayet and Patel warn that medical measures should not be continued too long if the patient is not improving, otherwise he will be in bad condition for an operation if this becomes necessary. The medical measures should be those for obstinate constipation in general except that drastic purgatives should be avoided. The only drug that seems to have done any good is morphin; this acts by abolishing spasmodic contraction. Seven different operations may be applied and the authors review series of cases of each type, totaling forty-one, some of them not previously reported. Sometimes an exploratory laparotomy reveals torsion and other mechanical conditions which it is easy to remedy without the knife or merely with a colopexy. This partial operation is liable to fail, however; probably many failures in this category have not been published. The best plan is to make an artificial anus at once. This can be done easily and rapidly, they say, if the appendix is utilized to make the new anus; this proved successful in two very serious cases in their experience. When the disturbances from obstruction have subsided, the way is cleared for radical operation on the enlarged colon. When the patient is robust and the colon is very much enlarged, they advise inserting the ileum in the terminal portion of the sigmoid flexure, excluding the abnormal part of the bowel altogether. Sometimes an abdominal tumor is the only finding. When the supposed tumor proved to be feces impacted in the enlarged colon, they have found it possible in some cases to manipulate the fecal masses toward the natural anus after the abdomen has been opened. If the masses are stony hard, this measure is not advisable as the intestine is liable to become injured thereby. Enterotomy should be reserved exclusively for cases of this kind unless enterectomy at once is deemed preferable.

66. **Autoplastic Treatment of Hypospadias.**—Cantas cuts a skin flap in the thigh, including in it a stretch of the internal saphenous vein. This flap is twisted around and the vein utilized to make the urethra. He reports a case in which this technic was successfully applied.

Presse Médicale, Paris

March 1, XIX, No. 17, pp. 153-160

67 Mechanism of Spasmodic Contracture. M. Noica.
68 Headache with Abnormally Low Blood-Pressure. (Cephalalgie des hypotendus.) A. Martinet.

Semaine Médicale, Paris

March 8, XXXI, No. 10, pp. 109-120

69 *Hexamethylenamin in Treatment of Acute Biliary Infections and of Typhoid Fever. (L'urotropine dans le traitement des infections biliares aigues et de la fièvre typhoide.) A. Chauffard.
70 *Should Women in Eclampsia Nurse Their Infants? R. de Bovis.

69. **Acute Biliary Infections in Typhoid Fever.**—Chauffard is convinced that if careful search were made for signs of acute infection of the gall-bladder and bile ducts in typhoid fever, infectious processes in this region due to the typhoid bacilli would oftener be discovered. He has encountered a number of such cases, as he relates in detail, and discusses whether it might not be possible to give some drug which is eliminated in the bile and might thus act directly on the angiocholecystitis. The latter condition is a frequent source of typhoid relapses and may leave the patient a chronic carrier. Recent research has shown, he says, that hexamethylenamin is eliminated in the bile and thus it can sterilize the biliary passages while it cures the bacilluria at the same time. He has been much impressed with the promptly favorable modification in typhoid fever which followed exhibition of 0.5 gm (7.5 grains) of the hexamethylenamin three times a day. One patient was a youth of 15 with chills and high fever, tenderness and discomfort in the right hypochondrium, all developing the twenty-second day of a mild typhoid. The temperature chart shows the prompt benefit which followed this medication.

70. **Should Women with Eclampsia Nurse Their Infants.**—De Bovis concludes from some recent reports that it is best to draw and throw away the milk of women with eclampsia developing after delivery as it is liable to prove toxic for the infant for a few days. After the toxins have been more or less perfectly eliminated the child can be put to the breast. It is probable, he thinks, that every parturient is in a condition of auto-intoxication to a certain extent, and it is possible that the milk attracts the toxins of eclampsia as it seems to attract arsenic. When the eclampsia develops before delivery, the toxins are more liable to be eliminated by the time the infant is ready to nurse than when the eclampsia does not come on until after the child is born.

Archiv für klinische Chirurgie, Berlin

XCIV, No. 3, pp. 481-709. Last indexed February 18, p. 545

71 Experimental Research on Pathogenesis of Round Gastric Ulcer. F. Rosenbach and Eschker.
72 Experimental Research on Tetany. N. Guleke.
73 Rectal Tumor from Non-Malignant Transformation of Epithelium. (Benigne Epithelheterotopie als Ursache eines Mastdarmtumors.) A. Cahn.
74 Technic for Extensive Resection of the Stomach. J. Schoemaker.
75 Appendicitis. (Zur Behandlung der acuten eitrigen Appendicitis mit circumscripter oder diffuser Peritonitis.) F. Sasse.
76 Mechanism of Dislocation of Joints with Single Axis. (Zur Mechanik der Luxation der einachsigen Gelenke.) H. Zuppinger.
77 Tincture of Iodin Superior to Alcohol for Sterilization. (Vergleichende Desinfectionsversuche mit Jodtinctur und Alkohol.) F. Drüning.
78 End-Results of Transplantation of Pedunculated Suprarenals. (Gestielte Nebennierentransplantation und ihre Endresultate.) H. v. Haberer.
79 Trigger Finger. (Der schnellende Finger.) K. Poulsen.
80 Prolapse of Fat Tissue Surrounding Kidney. (Prolaps des Fettlagers der Niere, eine Hernia lumbalis vortäuschend.) Duncker.
81 *Spontaneous Retrogression of Superficial Epithelioma. J. Bolognesi.

81. **Spontaneous Retrogression of Cutaneous Epitheliomas.**—Bolognesi gives illustrations of a case of multiple epitheliomas on the lips, cheeks and eyebrow of a woman of 72 which developed in the course of a year and a half and then gradually subsided, leaving for most of them merely a pinkish scar. Scraps excised at various times from the retrogressing tumors and excision of one in the brow showed the structure of Krompecher's baso-cellular epithelioma, Darier's epithelioma of the second class, nothing of the cancroid type.

Beiträge zur Klinik der Tuberkulose, Würzburg

XIX, No. 1, pp. 1-335. Last indexed March 18, p. 855

82 *Induced Pneumothorax in Pulmonary Tuberculosis. III. L. Brauer and L. Spengler.

82. **Induced Pneumothorax in Tuberculosis.**—This volume of 336 pages contains the detailed account of eighty-three cases, bringing the total to 102 in which Brauer and Spengler have compressed the lung by an artificially induced pneumothorax in treatment of unilateral pulmonary tuberculosis. The work was done at the medical clinic at Marburg or the Davos sanatorium, and this forms the third memoir on the subject. The volume is dedicated to Professor Erb on his seventieth birthday. The material is arranged and numbered so that a complete oversight of the cases is possible in these and in future later reports. Complete recovery was obtained in a number of cases in which, they are convinced, it would have been impossible to realize similar benefit by other measures. They are becoming more and more certain that with careful selection, in the moderately severe cases this collapse therapy, as they call it, when conditions permit will give excellent results. As pioneers in this field, however, they feel bound to extreme caution and reserve and consequently they think the measure must stand its highest test in the severer cases so that its dangers and shadows may be fully appreciated. Then it can be applied in the milder cases with courage and confidence. A number of Roentgen-ray pictures and curves are appended.

Beiträge zur klinischen Chirurgie, Tübingen

February, LXXII, No. 1, pp. 1-264

83 Biology of Malignant New Growths. (Zur Biologie der bösartigen Neubildungen.) E. E. Goldmann.
84 *Hemostasis by High-Frequency Electric Current. (Blutstillung durch Hochfrequenzströme.) M. Hoffmann.
85 *Joint Lesions in Scarlet Fever and Measles. (Gelenkerkrankungen bei Scharlach und Masern.) K. Fritsch.
86 Determination of the Viscosity of the Blood in Surgical Abdominal Disease. L. Simon.
87 Tuberculosis of the Penis. C. Rose.
88 Experimental Inoculation with Echinococcus Disease. (Experimentelle Erzeugung des Echinococcus durch Keimpfropfung.) G. Hosemann.

89 *Thymectomy in Exophthalmic Goiter. W. Capelle and R. Bayer.
90 Pathology of Coxa Vara in Adolescence. P. Frangenheim.
91 Injuries of the Optic Nerve with Fracture of the Skull. (Verletzung des Nervus opticus bei Schädelfrakturen.) H. v. Tappeiner.

84. **Hemostasis by the High-Frequency Current.**—Hoffmann extols the advantages of obliterating the lumen of the smaller vessels by the high-frequency current applied in the form of the cold cautery. He ligates the larger vessels as usual but obliterates the smaller vessels by this rapid means, thus saving time, leaving no foreign body and sterilizing the tissues.

85. **Joint Lesions in Scarlet Fever and Measles.**—Fritsch analyzes a number of cases and comes to the conclusion that the scarlet fever germ is liable to induce joint processes but that these processes are always mild, with a purely serous although possibly copious effusion; generally they heal with a good outcome. When streptococcus infection complicates the scarlet fever, however, the streptococci invade the joints already suffering from the true scarlatinal process, and a lesion results which is liable to have serious consequences unless surgical aid is called in at once. Preisich's conclusions from study of 6,985 cases of scarlet fever also sustain this assumption that a distinction should be made between pure scarlet fever and that complicated with streptococcus infection to which scarlet fever patients seem exceptionally susceptible and which seems to develop with unusual virulence in them. In the pure form, the throat is red and swollen but there is no coating; the disease runs its course without complications, at most sometimes pain in the joints and moderate fever with slight swelling of the joints. Neither during life nor at necropsy could he find streptococci in the cases of this class. In the mixed cases or "septic scarlet fever," the throat is swollen much more and the tonsils are the seat of an active inflammation ranging from follicular tonsillitis to the ulcerative, membranous form with necrosis. The type of fever in this class is also much higher, running up rapidly at first and gradually declining. These are the cases with a fulminating course or suppurating processes. Fritsch adds that this hypersusceptibility to streptococcus infection which distinguishes scarlet fever may manifest itself during the phase of incubation. This explains why the streptococcus infection may manifest itself in the form of the tonsillitis even before the actual symptoms of the scarlatinal infection develop. He emphasizes the practical conclusion from the data presented that a suppurating scarlatinal joint affection demands surgical treatment from its first inception, and at any time in its course or convalescence, to prevent serious damage of the joint. It is a mixed infection with streptococci locating at the point injured by the true scarlatinal process, and the only effectual treatment is by operative measures. On the other hand the true scarlet fever joint process never suppurates and as a rule it heals spontaneously or it may leave contracture or dislocation on account of defective treatment or neglect. This form is by far the most frequent; Brade, for instance, found serous joint processes in 65 and suppurative in 4 of 868 scarlet fever cases; others report unclassified joint disturbances in 1.04 per cent. (Föhr) and 37.5 per cent. (Gerhard) of their total scarlet fever cases.

In the pure cases reported by Fritsch a number of joints were affected; not even the vertebral and sternoclavicular articulations escaped. Usually several joints were affected at about the same time, and there was no recurrence. The general health did not seem to suffer much except for the local pains which were sometimes intense. Nephritis was observed in nearly all these cases and endocarditis in a few. The joint trouble keeps up for about three days or a week and then subsides completely. A chronic form of the pure scarlatinal type has been observed, however, in a few cases on record. In this form the joint lesions do not develop until the fourth week of the scarlet fever, and the general health suffers materially; the later the joint trouble begins the severer its course as a rule. At the same time the final outcome is a complete recovery in all but a few cases in which the disturbance entails a flail joint or spontaneous dislocation which may require surgical intervention.

89. **Thymectomy in Exophthalmic Goiter.**—Capelle and Bayer advise thymectomy in case of persisting thymus in exophthalmic goiter, and report a case in which this was done; they report also extensive experimental research with thymus extract to determine its action on the blood, heart, etc. In the case reported, the patient was a girl of 22 who had had Basedow symptoms for six months. The exophthalmos, goiter and bulbar symptoms still persisted after the thymus had been removed but in an incomparably milder form, while there was no further tachycardia and the blood-picture returned to normal. This improvement became marked in the course of the following three months and sustained the assumption drawn from the experimental research that a persisting thymus is liable to aggravate the Basedow syndrome by its internal secretion which acts mainly on the heart.

Berliner klinische Wochenschrift

February 27, XLVIII, No. 9, pp. 369-412

92 Active Toxic Substance from Tubercle Bacilli. (Anaphylatoxin.) E. Friedberger and A. Schutze.
93 Mutation Phenomena in Strains of Cholera Germs. Baerthlein.
94 The Tryptophan Test for Gastric Cancer. (Diagnostischer Wert der Glycyltryptophanprobe bei Magencarcinom.) H. Pechstein.
95 Differential Diagnosis and Treatment of Diabetes Insipidus. Rosendorff and Unna.
96 Influence of Intravenous Salvarsan Injections on the Wassermann Reaction. C. Gutmann.
97 *Iodin in Exophthalmic Goiter. (Zur Jodbehandlung bei der Basedow'schen Krankheit.) F. W. Ohlemann.
98 New Tasks for Communal Hygiene. A. Lewandowski.
99 Pathology and Treatment of Hydrocele. C. Posner.

97. **Iodin in Exophthalmic Goiter.**—Ohlemann protests against the assumption that iodin is necessarily harmful in the Basedow syndrome, and states that he succeeded in practically curing it in himself years ago by prolonged iodin treatment, restricting himself to minute doses, such as 10 or 20 drops of a 20 per cent. solution of potassium iodid, once or twice a day, changing later to tincture of iodin of which he took 150 c.c. in the course of three or four years. He had an inherited tendency to the affection which had been aggravated by a mountain climbing trip.

Centralblatt für die Grenzgebiete der Med. und Chir., Jena

February 16, XIV, No. 2, pp. 49-80

100 Circumscribed Typhoid Intracranial Suppuration. (Hirnabscesse und sonstige umschriebene intrakranielle Eiterungen im Verlauf und Gefolge des Typhus abdominalis.) L. Melchior. Commenced in No. 1.

Correspondenz-Blatt für Schweizer Aerzte, Basel

February 10, XLI, No. 5, pp. 145-176

101 Ergot. (Die wirksamen Bestandteile des Mutterkorns.) E. Bernoulli.

February 20, No. 6, pp. 177-224

102 Physiologic Action and Therapeutic Use of Mineral Springs. (Heilquellen-Aktivität.) E. Sommer.
103 Roentgen Rays in Dermatology. H. Merz.

Deutsche medizinische Wochenschrift, Berlin

March 2, XXXVII, No. 9, pp. 385-432

104 Mechanism of Tuberculin Reaction. R. Kraus, E. Löwenstein and R. Volk.
105 Importance of Tuberculosis in the Etiology of Intra-Ocular Hemorrhages, Proliferating Changes in Retina and Retinal Periphlebitis in the Tuberculous. T. Axenfeld and W. Stock.
106 Jonnesco's Method of Spinal Anesthesia. (Die allgemeine Rachianästhesie.) T. Jonnesco.
107 Ankylostomiasis. H. Bruns.
108 Action of the Ultraviolet Quartz Lamp Light on the Blood-Pressure and in General Disease. H. Bach.
109 *Alcohol-Tannin for Sterilization of the Hands and Field of Operation. A. Zabludowski.
110 Improved Method for Sterilization and Preservation of Catgut. E. McDonald.
111 *Prophylaxis of Cholera in Finland. R. Sievers.

109. **Alcohol-Tannin Surgical Sterilization.**—Zabludowski reports comparative tests of various methods of sterilization and reiterates that a 5 per cent. alcohol solution of tannin surpasses all the other technics with the exception of tincture of iodin; it ranks with this while it is free from its disadvantages. The tannin solution is applied to the hands for two minutes and to the field of operation for one minute; the previous use of water does not affect it.

111. **How Finland Keeps Out Cholera From Russia.**—Sievers states that during the two great cholera epidemics in Russia Finland has kept its skirts free from contamination, although there was no interference with the intercourse between the countries, no quarantine and no special search for persons

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from cholera foci. The main point was a numerous force of physicians and small hospitals at the points most threatened, inspection of everyone arriving by rail or horse, and of all ships and vehicles coming from regions where cholera was prevalent, isolation in hospitals of the suspects, sterilization of his baggage and inspection of all with whom the sick had come in contact. Correct and immediate notices of every case were published in the papers and the public was kept informed with articles in the papers and lectures in regard to the nature of cholera and the means to escape it. By these means the physicians, the populace and the authorities, national and communal, all worked in harmony. All the trains between Finland and Russia carried a hospital car, with from two to six beds. During the great epidemic in Russia last year there were only seven cases of cholera in Finland, all imported, and no epidemic developed from them.

Deutsche Zeitschrift für Chirurgie, Leipsic

February, CVIII, Nos. 5-6, pp. 429-626

112 Six Hundred and Forty-Seven Appendicitis Cases. (Beiträge zur Appendicitisfrage auf Grund der Erfahrungen der Göttinger Klinik in den letzten vierzehn Jahren.) A. Fromme.
113 Intravenous Hedonal Anesthesia. A. P. Jeremitsch.
114 Proteus Rib Abscess. (Proteus vulgaris, Erreger eines subperichondralen Rippenabszesses.) E. R. Flinzer.
115 Prolapse of Bladder in Female Infant with Pertussis. W. Hirokawa.
116 *Double Suppurative Pleurisy. M. B. Fabrikant.

116. **Bilateral Suppurative Pleurisy.**—Fabrikant discusses whether both sides should be operated on, whether it should be done at one time or with an interval and with aspiration on one side and a radical operation on the other. He was confronted with these questions when called to treat an 18-year-old bookbinder with suppurating pleurisy on both sides in 1897. The patient was extremely debilitated and semiconscious and puncture of the right side brought pus with the Fränkel diplococcus. The first symptoms had been observed nearly three weeks before, after sudden exposure to cold when heated. The puncture brought great relief but the accumulation returned and the process was opened by resection of the seventh rib. The subjective relief was marked but as fever persisted, the left side was punctured and a quart of pus aspirated. The secretion in the right side gradually subsided and by the twentieth day the wound was healing well. During this time the left side had required aspiration twice, each time a quart of fluid being withdrawn; the third time only a third of this amount was removed. The fever kept high, reaching 39 C (102 F.) and respiration became more difficult. As soon as the wound in the right side had healed, the left seventh rib was resected in the same way, under local anesthesia, and large amounts of pus and sponge-like masses of fibrin were removed as at the first operation. The temperature dropped to normal on the same day. The second day after the operation on each side it proved necessary to rinse out the cavity with salt solution as clots of fibrin clogged the drains. By the third day after the left operation scarcely a teaspoonful of a seropurulent fluid drained away and by the end of the month the patient had entirely recovered and is in good health at date of writing, fourteen years since his sickness. In 118 similar cases of bilateral suppurating pleuritis which Fabrikant summarizes from the literature, only seventy-four of the patients survived, the mortality being 37.2 per cent. These data permit a more encouraging view of bilateral purulent pleurisy than is generally accepted he thinks; even the lack of adhesions between the sheets of the pleura is not essential to vital functioning, as some patients recovered even when the lung collapsed. Hellin deduced the same conclusions from his summary of fifty-four cases in 1907. He even asserted that the ideas prevailing in regard to the mechanism of respiration must be erroneous as the bilateral pneumothorax in these cases did not prove fatal. The reason why bilateral pneumothorax does so often prove disastrous must be sought elsewhere, he affirms, than in differences in pressure. The experiences related by Fabrikant show that bilateral pleural empyema is most frequent in children and is very rare after 30. Pneumonia on one or both sides was the most frequent cause, but primary empyema is not rare. The mortality is not high when operative relief is obtained in time. Both sides can be operated on at one time if the patient's condition permits, but an interval of a few days is better. Puncture and aspiration are not sufficient; both sides of the chest should be extensively opened up. If the interspaces are wide, thoracotomy may be ample, but if not a rib should be resected. The operation can be done easily and painlessly under local anesthesia; he used the Schleich technic. In his case there was paralysis of the vocal cords, the nerves and veins probably being compressed by the edematous pleura.

Medizinische Klinik, Berlin

February 25, VII, No. 9, pp. 327-362 and Supplement

117 *Tabetic Atrophy of the Optic Nerve. (Tabische Sehnervenatrophie.) A. Elschnig.
118 Forensic Determination of Date of Conception. (Zur gerichtsärztlichen Beurteilung des Konzeptionstermins nach dem Entwicklungsgrade des Kindes.) O. v. Franqué.
119 Need for Standardization of Heart Stimulants. (Praktische Durchführung der Kontrolle eines Digitalis- und Strophantuspräparates im Hinblick auf die Gleichmässigkeit seiner kardialen Wirkung.) A. Bickel.
120 Etiology, Diagnosis and Treatment of Low Rectal Strictures. (Mastdarmstrikturen.) P. Dorsemagen.
121 Opsonin Therapy of Skin Disease. E. Saalfeld.
122 Commercial Foods in Infant Feeding. (Anwendung von Nährpräparaten im frühen Kindesalter.) P. Croner.
123 Lack of Phosphorus in the Centers in the Cortex as Cause of Migraine. W. R. Schottin.
124 Absorption of Soluble and Insoluble Salicylic Preparations in the Gastro-Intestinal Tract. K. Burow.
125 *Venous Thrombosis. E. Schepelmann.

117. **Tabetic Atrophy of Optic Nerve.**—Elschnig has encountered sixty-six cases of tabetic atrophy of the optic nerve in the last few years, including nine women. Only one of the latter had an acknowledged history of syphilis but the numerous abortions in all the cases testified to its existence. In only three of the total sixty-six cases had the syphilis been systematically treated, and in only a single case had the course of treatment corresponded to modern requirements. During the same period he has encountered 120 cases of reflex rigidity of the pupils or paralysis of the ocular muscles as one of the manifestations of tabes; except for those whose occupation induced a predisposition, none of the patients had been properly treated for their syphilis. In this group and also in the optic atrophy cases the deleterious influence of alcohol is most instructively evident, as the only cases in which mercury and iodid failed to display their usual efficacy were those in which the counteracting influence of alcohol was apparent. Barkeepers, acrobats and musicians seem to be especially predisposed to tabes by the fact of their occupation, judging from his experience. Elschnig's conclusions in regard to the prevalence of tabes among untreated syphilitics conflict with those of Silex. Winternitz and others who have reported 80 per cent. of well-treated patients among tabetics in their practice, but analysis of the records shows that the treatment was far from meeting modern requirements. The Wassermann reaction was positive in sixteen out of a series of seventeen tabetics with optic atrophy tested. Hecht has also recently reported that among twelve patients being recently treated by Kreibich for soft chancre, with negative Wassermann reaction, four have since returned with secondary manifestations of syphilis. There can be no question, Elschnig remarks, that the soft chancre is often the portal of entry for the syphilis germ. He draws the practical conclusion from his experience and study of the literature that the general practitioner and the dermatologist should pay more attention to the behavior of the pupils in syphilitics, and when there are pupil disturbances they should be referred to their true cause and the patients treated accordingly instead of ascribing the eye manifestations to other causes and neglecting intermittent antisyphilitic medication. He warns further that the rapid benefit under salvarsan in the primary phase of syphilis may mislead physicians and patients to neglect adequate mercurial treatment and thus allow the foundation for the parasyphilitic affections later to be laid. It is imperatively necessary on this account, he declares, to pay special attention in following years to those who have been treated with salvarsan—the hopes linked with the assumption of a possible "therapia sterilisans magna" have already melted away.

125. **Venous Thrombosis.**—Schepelmann reviews a number of important works on this subject that have appeared between 1841 and 1910, stating his conclusion that some lesion

or other disturbance in the intima of the vessel and some disturbance in the circulation of the blood are indispensable factors in the development of thrombosis. It has been encountered not only in the course of heart and vascular disease, marasmus, cancer, phthisis, syphilis and acute infectious disease, but also in acute and chronic suppurations, especially appendicitis and otitis, pyemia and poisonings. The localization and course of the thrombosis are peculiar in anemia, leukemia and chlorosis, as he shows by a number of examples from the records. By far the largest proportion of cases of thrombosis, however, develop in connection with operations and deliveries, but a few cases are on record of thrombosis following trauma, sometimes quite slight, and he reports an instructive case of this kind in a robust young man who had been riding an unruly horse. The strain on his arms was the probable cause of the thrombosis which suddenly developed in the left subclavian, axillary and brachial veins. Schepelmann assumes that the traction on the veins in the arm must have injured the intima; a predisposing factor existed in bradycardia from a slight cardiac defect; in youth the patient had had diphtheria, articular rheumatism and a furuncle in the ear.

Münchener medizinische Wochenschrift

February 28, LVIII, No. 9, pp. 441-496

126 Red Corpuscles as Complete Cells. (Der Säugetiererythrozyt als vollständige Zelle und seine Beziehung zum Blutplättchen.) V. Schilling.
127 Nervous Respiratory and Cardiac Disturbances as Consequence of Gastro-Intestinal Irritation. M. Saenger.
128 *Salvarsan in Non-Syphilitic Ulceration of the Mouth and Throat. P. H. Gerber.
129 Salvarsan in Syphilis. A. Sack.
130 *Induced Pneumothorax in Severe Unilateral Pulmonary Tuberculosis. L. Spengler.
131 Protection of Eyes in Glass-Works. (Augenschutz in Glashütten.) F. Koelsch.
132 Biology of Menstruation. (Zur Lehre von der Entstehung der Menstruation.) A. Theilhaber.
133 *Gonorrheal General Infection. W. H. Leede.
134 Urine Reaction in Disease of Central Nervous System. (Spezifische Bedeutung der Harnreaktion mit Liquor Bellostii bei Paralyse.) F. Stern.
135 Harelip with Cleft Palate. (Behandlung der mit Wolfsrachen komplizierten einseitigen Hasenscharten.) R. Drenkhahn.

128. **Salvarsan in Non-Syphilitic Mouth Lesions.**—Gerber presents clinical evidence to show that not only Vincent's angina but numerous other inflammatory affections of the mouth and throat are the work of spirochetes. Not only gingivitis but simple and mercurial stomatitis, scorbutus and possibly noma are the result of invasion by the spirochetes when a path is opened for them by minute lesions. Drugs that act on spirochetes have a curative influence, as he shows by three cases reported in which salvarsan proved effectual.

130. **Permanent Cure of Tuberculosis with Induced Pneumothorax.**—Spengler has now fifteen patients who can be regarded as clinically cured by the artificially induced pneumothorax. From nine months to four years have elapsed since the close of the treatment and the patients have neither fever, cough nor sputum while all are in prime working condition. The ages ranged from 11, 16, 17 and 18 to 31, 34, 35 and 43. The pneumothorax was maintained for from two months to five months in two cases, in three from ten to fifteen, and in four from eighteen to twenty-four months. Compare with Abstract 82, above.

133. **Gonorrheal General Infection.**—Leede reports a case which resembles one of Jadassohn's in which the urethra seemed to be intact and the general infection occurred through an erosion in the skin. Leede's case is one of the rare instances of fatal gonorrheal arthritis. A purulent hemorrhagic lesion in the ankle was the main source of the intoxication; Leede ascribes the severe general symptoms to a peculiar iodiosyncrasy to the toxins generated by the gonococci. This was evidently responsible for the stupor, the cachexia, the extreme atrophy of the muscles, the desquamation and the fatty degeneration of the heart; the blood was constantly sterile. In another case the syndrome began about the same, the left elbow being the seat of the lesion. In this case he punctured the joint but without finding pus or effusion and then he opened the joint wide, allowing the escape of considerable edema fluid. This released the toxins in the focus and the patient soon recovered. No gonococci could be cultivated from the fluid in this last case. Leede's experience thus teaches the wisdom of ample opening up of the joint when gonorrheal arthritis is accompanied by great debility, emaciation, etc.

Gazzetta degli Ospedali e delle Cliniche, Milan

February 26, XXXII, No. 25, pp. 259-274

136 Paroxysmal Course of Certain Nervous Diseases. (Sul decorso accessuale di alcune malattie nervose.) F. Rivalta.
137 Treatment of Anthrax. (Terapia dell'infezione carbonchiosa nell'uomo.) R. G. Zoda.

Riforma Medica, Naples

February 27, XXVII, No. 9, pp. 225-252

138 Intrapontine Tumor. A. Rovighi.
139 Rapid Bacteriologic Differentiation of Cholera. G. Pollaci.
140 Comparative Tests with Antiformin for Tubercle Bacilli in Sputum. (Il metodo dell'antiformina per la ricerca del bacillo tubercolare nello sputo.) G. Mangeri.

Books Received

Books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.

1910 BLUE BOOK OF SURGERY. Technic of the Surgical Clinic, Anesthesia and Anesthetics, Preoperative and Postoperative Care of the Patient, and Diagnosis and Treatment of Some of the Most Important and Frequent Surgical Diseases. Compiled for the Interns, Students and Nurses of the College of Medicine and Surgery, University of the Philippines, and the Philippine General Hospital. Under the Direction of John R. McDill, M.D., Professor of Surgery, College of Medicine and Surgery, Univ. of the Philippines. By Hans E. Schiffbauer, M.D., Instructor in Surgery, College of Medicine and Surgery, Univ. of the Philippines. (Published in part in the Bulletin of the Manila Medical Society.) Cloth. Pp. 66.

THE TREATMENT OF SYPHILIS WITH SALVARSAN. By Dr. Wilhelm Wechselmann, of Berlin, Medical Director of the Skin and Venereal Disease Section, Rudolph Virchow Hospital, Berlin. With an Introduction by Dr. Paul Ehrlich, of Frankfort-on-Main, Director of the Royal Institute for Experimental Therapeutics, Frankfort. Only Authorized Translation by Abr. L. Wolbarst, M.D., of New York, Consulting Genito-Urinary Surgeon, Central Islip State Hospital. Cloth. Price, $5. Pp. 175, with illustrations. New York: Rebman Co., (1911).

A HANDBOOK OF OBSTETRIC NURSING. For Nurses, Students and Mothers. Comprising the Course of Instruction in Obstetric Nursing Given to the Pupils of the Training School for Nurses Connected with the Woman's Hospital of Philadelphia. By Anna M. Fullerton, M.D., Formerly Obstetrician, Gynecologist and Surgeon to the Woman's Hospital of Philadelphia. Seventh Edition. Cloth. Price, $1 net. Pp. 272, with 61 illustrations. Philadelphia: P. Blakiston's Son & Co., 1911.

A HANDBOOK OF PRACTICAL TREATMENT. By Many Writers. Edited by John H. Musser, M.D., LL.D., Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia, and A. O. J. Kelly, A.M., M.D., Assistant Professor of Medicine in the University of Pennsylvania, Philadelphia. In Three Volumes. Vol. II. Cloth. Price, $6 net. Pp. 865, with 103 illustrations. Philadelphia: W. B. Saunders Co., 1911.

FEEBLE-MINDEDNESS IN CHILDREN OF SCHOOL AGE. By C. Paget Lapage, M.D., M.R.C.P., Lecturer in School Hygiene to the Manchester University. With an Appendix on Treatment and Training, by Mary Dendy, M.A. Cloth. Price, $1.60 net. Pp. 359, with illustrations. New York: Longmans, Green & Co., (1911).

DYKE'S AUTOMOBILE ENCYCLOPEDIA (1911). In 29 Parts, Including a Dictionary. Treating on Construction, Operation, Repairing of Automobiles and Gasoline Engines. By A. L. Dyke, E. E., Member Society Auto Engineers. Cloth. Pp. 407, with illustrations. St. Louis: A. L. Dyke.

TECHNIK DER MIKROSKOPISCHEN UNTERSUCHUNG DES NERVENSYSTEMS. Von W. Spielmeyer, Privatdozent und Assistent an der psychiatrischen und Nervenklinik in Freiburg i. Br. Cloth. Price, 4.40 marks. Pp. 131. Berlin: Julius Springer, 1911.

CHOLERA AND ITS TREATMENT. By Leonard Rogers, M.D., F.R.C.P., F.R.C.S., Physician, Cholera Wards, Medical College Hospital, Calcutta. Oxford Medical Publications. Cloth. Price, $4 Pp. 236. New York: Oxford University Press, 1911.

DIE AKUTE POLIOMYELITIS BZW. HEINE-MEDINSCHE KRANKHEIT. Von Dr. Ivar Wickman, Privatdozent am Karolinischen Institut zu Stockholm. Paper. Price, 5 marks. Pp. 108, with illustrations. Berlin: Julius Springer, 1911.

STATE BOARD QUESTIONS AND ANSWERS. By R. Max Goepp, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Second Edition. Cloth. Price, $4 net. Pp. 715. Philadelphia: W. B. Saunders Co., 1911.

VICIOUS CIRCLES IN DISEASE. By Jamieson B. Hurry, M.A., M.D. (Cantab.). Cloth. Price, $2 net. Pp. 186, with illustrations. Philadelphia: P. Blakiston's Son & Co., 1911.

EIGHTEENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE TOWN OF WESTFIELD [MASS.]. For the Year Ending Jan. 20, 1911. Paper. Pp. 23.

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